

Airdrie - Area.
(as recieved)

From: SC / VI (INFC)
Sent: March 7, 2019 12:00 PM
To: Leona Esau
Subject: Smart Cities Challenge - Successful Final Proposal Submission

Dear Leona,

Congratulations! Your submission is ready to move onto evaluation following a completeness check (per the latest FAQs).

Thank you for your cooperation, patience, and hard work, especially during the past eight months. We are truly honoured to have worked with you and wish you the best of luck in the competition!

On a related matter, we have recently determined that it will not be feasible to post final proposals on the Infrastructure Canada website in a timely manner. Instead, we will take an approach similar to the application stage and publish your executive summary in both official languages on the Infrastructure Canada website with a link to the final proposal on your website. We understand that posting the final proposal on your website is not a requirement contained in the finalist guide so we appreciate your cooperation in facilitating access to your final proposal in an open and transparent way. Please note that the accessibility materials you have prepared for your final proposal will still be helpful in preparing various communications products to promote and share knowledge of your work.

Once you have posted your final proposal on your website, please send us the link if you haven't done so already. If you anticipate that you will be unable to post your final proposal on your website within two weeks, please let us know.

As always, we are happy to answer any questions. The best way to reach us going forward would be at our generic account: infc.sc-vi.infc@canada.ca.

Thank you.

Smart Cities Challenge Team
Infrastructure Canada
infc.sc-vi.infc@canada.ca

COMPLETE CHECK FOR FINAL PROPOSAL

FINALIST: Airdrie and Area				
ASSESSED BY: Susan Hwang				
VALIDATED BY: Alex Long				
APPROVAL BY: Eric Poirier				
DATE OF COMPLETION: March 5, 2019				
REQUIREMENTS	COMPLETED	IF NOT COMPLETED, NOTE REASON	GUIDING PRINCIPLES	ACTIONS
SUBMISSION				
Submitted to infc.sc-vi.infc@canada.ca by 23:59 PST on March 5, 2019	<input checked="" type="checkbox"/>		<ul style="list-style-type: none"> No extensions will be granted No exceptions will be made for lateness or technical problems (finalist must be able to show evidence of submission) 	<ul style="list-style-type: none"> # to contact finalist If not resolved, # to flag to DG for decision
Final proposal is submitted	<input checked="" type="checkbox"/>		<ul style="list-style-type: none"> No extensions will be granted There is flexibility on the finalist video until the end of the week 	<ul style="list-style-type: none"> Assessor to save everything in designated folders # to contact finalist if anything is missing If not resolved, # to flag to DG for decision
Finalist video is submitted	<input checked="" type="checkbox"/>		<ul style="list-style-type: none"> There is flexibility on the finalist video until the end of the week 	<ul style="list-style-type: none"> Assessor to save everything in designated folders # to contact finalist if anything is missing If not resolved, # to flag to DG for decision
Preliminary Privacy Impact Assessment or Preliminary Rationale Analysis	<input checked="" type="checkbox"/>		<ul style="list-style-type: none"> No extensions will be granted 	<ul style="list-style-type: none"> Assessor to save everything in designated folders # to contact finalist if anything is missing If not resolved, # to flag to DG for decision
FINAL PROPOSAL				
Written in one of Canada's official languages	<input checked="" type="checkbox"/>		<ul style="list-style-type: none"> If the final proposal is submitted in a language other than English or French, a companion version in English or French is required from the finalist 	<ul style="list-style-type: none"> # to extract the executive summary from the final proposal and send it to translation (if a French final proposal, send the entire document to translation)
Generally readable (e.g. picture is not covering text, text are not overlapping)	<input checked="" type="checkbox"/>		<ul style="list-style-type: none"> If there are serious formatting issues that hinders readability, the finalist may need to resubmit 	<ul style="list-style-type: none"> # to do a scan of the final proposal and verify that all text and tables, graph, etc. could be read
Text-based and in either MS Word (.doc or .docx) or a fully readable, searchable, and selectable PDF (.pdf) format	<input checked="" type="checkbox"/>		<ul style="list-style-type: none"> Finalist may adjust the format for INFC posting purposes after the deadline 	<ul style="list-style-type: none"> # to verify with Comms if format is suitable for posting, given INFC web accessibility standards If not suitable, # to contact finalist
No longer than 75 pages* (Financial chapter exempted) and in 12 point font	<input checked="" type="checkbox"/>		<ul style="list-style-type: none"> Finalist cannot adjust content after the deadline If the text overall is smaller than 12 point font, INFC will adjust and evaluate within the new page count 	<ul style="list-style-type: none"> # to notify finalist if final proposal is over 75 pages # to notify finalist if INFC had to adjust the font and page count

Contains an executive summary	<input checked="" type="checkbox"/>			<ul style="list-style-type: none"> # to QC and save translated version into the designated folder
Organized by these distinct chapters (not limited to these; not necessarily in the same order): <ul style="list-style-type: none"> Vision Performance measurement Project management Technology Governance Engagement Data and privacy Financial Implementation phase requirements 	<input checked="" type="checkbox"/>	<i>Also make a note of other chapters, if any</i>	<ul style="list-style-type: none"> Finalist must have these chapters Finalist can have more chapters Finalist can change the order of the chapters 	<ul style="list-style-type: none"> If the chapters are not clearly labeled, # to do a light analysis of where the content may be and make a note for the Jury
FINALIST VIDEO				
No longer than five minutes	<input checked="" type="checkbox"/>		<ul style="list-style-type: none"> Finalist may cut down the time for INFC posting purposes after the deadline 	<ul style="list-style-type: none"> # to notify finalist if video is longer than five minutes and needs cutting down
Submitted as a file or in a downloadable format	<input checked="" type="checkbox"/>	NOTE: Accessibility document only contains transcripts of two videos in FP	<ul style="list-style-type: none"> Finalist may adjust the format for INFC posting purposes after the deadline 	<ul style="list-style-type: none"> # to verify with Comms if format is suitable for posting, given INFC web accessibility standards If not suitable, # to contact finalist
CONFIDENTIAL ANNEX (OPTIONAL)				
Submitted if and only if required	<input checked="" type="checkbox"/>			<ul style="list-style-type: none"> # to flag with DG if confidential annex is lengthy

Jacaban2, Evalynne (INFC)

From: Leona Esau [REDACTED]
Sent: March 4, 2019 6:34 PM
To: SC / VI (INFC)
Cc: 'Dave Jackson'; Jay Stoudt
Subject: Final Proposal - City of Airdrie & Area - 1 of 2 emails
Attachments: Final_Proposal_Airdrie & Area_SCC.pdf

Hello,

Please find attached the Smart Cities Challenge final proposal submission for the City of Airdrie & Area. The Appendices document along with the Video submission will be sent via the City of Airdrie's Large File Transfer site.

I will remain the point of contact for the City of Airdrie & Area submission.

If you have any questions or experience any difficulties accessing any of these files, please give me a call [REDACTED]
[REDACTED] Alternately, you contact Jay Stoudt, Manager of Information Technology, [REDACTED] or via email [REDACTED]
[REDACTED]

Thank you so much for this wonderful opportunity. Looking forward to discussing our final submission with Infrastructure Canada and the Smart Cities Challenge Jury.

Regards,

Leona

Leona Esau, Intergovernmental Liaison
City Manager's Office, City of Airdrie
P: 403.948.8800 [REDACTED]
C: [REDACTED]

Find out how you can help Airdrie become Canada's Healthiest Community



Jacaban2, Evalynne (INFC)

From: SC / VI (INFC)
Sent: March 5, 2019 9:47 AM
To: Leona Esau
Cc: [REDACTED]
Subject: RE: Final Proposal - City of Airdrie & Area - 2 of 2 emails

Hello,

Thank you for your submission. Please consider this email as acknowledgement of receipt. We will follow up with you to confirm that your final proposal is ready for evaluation.

Thank you.

Smart Cities Challenge Team
Infrastructure Canada
infc.sc-vi.infc@canada.ca

From: Leona Esau [mailto:[REDACTED]]
Sent: March 4, 2019 6:33 PM
To: SC / VI (INFC) <infc.sc-vi.infc@canada.ca>
Cc: [REDACTED]
Subject: Final Proposal - City of Airdrie & Area - 2 of 2 emails

Hello,

Please find attached the City of Airdrie & Area's Smart Cities Challenge Appendices and Video submissions. As per the email I sent with our Final Proposal submission, if you have any questions or experience any difficulties accessing these large files, please give me a call [REDACTED] Alternately, you contact Jay Stoudt, Manager of Information Technology [REDACTED] or via email [REDACTED]

Thank you so much for this wonderful opportunity. Looking forward to discussing our final submission with Infrastructure Canada and the Smart Cities Challenge Jury.

Regards,

Leona Esau
Intergovernmental Liaison, City of Airdrie
P: 403-948-8800 ext [REDACTED]
C: [REDACTED]
E: [REDACTED]

Files attached to this message

Filename	Size	Checksum (SHA256)
Appendices_Airdrie & Area_SCC.pdf	13.7 MB	[REDACTED]

Filename	Size	Checksum (SHA256)	ATIA - 13(1)(d)
Video_Airdrie & Area_SCC.mp4	461 MB		

Please click on the following link to download the attachments:

This email or download link can not be forwarded to anyone else.

The attachments are available until: **Wednesday, 6 March.**

Message ID:

Download Files



LiquidFiles Appliance: <https://LFT.AIRDRIE.CA>

Jacaban2, Evalynne (INFC)

From: SC / VI (INFC)
Sent: March 5, 2019 2:49 PM
To: Leona Esau
Subject: RE: Final Proposal - City of Airdrie and Area - Confidential Annex

Received – thank you.

Smart Cities Challenge Team
Infrastructure Canada
infc.sc-vi.infc@canada.ca

From: Leona Esau [mailto: [REDACTED]]
Sent: March 5, 2019 1:49 PM
To: SC / VI (INFC) <infc.sc-vi.infc@canada.ca>
Subject: Final Proposal - City of Airdrie and Area - Confidential Annex

Hello,

In my excitement to send the City of Airdrie and Area proposal yesterday, I neglected to include our Confidential Annex. Please find attached the document.

If you experience any challenges downloading this file please give me a call [REDACTED]

Regards,

Leona Esau
Intergovernmental Liaison
City of Airdrie

Files attached to this message

Filename	Size	Checksum (SHA256)
Confidential Annex.pdf	7.7 MB	[REDACTED]

Please click on the following link to download the attachments: [REDACTED]
This email or download link can not be forwarded to anyone else.

The attachments are available until: **Thursday, 7 March.**

Message ID: [REDACTED]

[Download Files](#)



LiquidFiles Appliance: <https://LFT.AIRDRIE.CA>

From: Tremblay, Jenny (INFC)
Sent: April 9, 2019 10:17 AM
To: Long, Alexander (INFC); evalynne.jacaban2@canada.ca; Brigit Knecht (brigit.knecht@canada.ca)
Subject: Airdrie : email re PPIA Smart Cities Challenge
Attachments: City of Airdrie PPIA.PDF

From: LeRoy Brower [mailto: [REDACTED]]
Sent: March 21, 2019 1:53 PM
To: Tremblay, Jenny (INFC) <jenny.tremblay@canada.ca>
Cc: [REDACTED]
Subject: Smart Cities Challenge

Hi Ms. Tremblay,

I have attached a letter related to our review of the City of Airdrie's preliminary privacy impact assessment.

Please feel free to contact me if you have any questions.

LeRoy Brower
Assistant Information and Privacy Commissioner
Office of the Information and Privacy Commissioner of Alberta

Phone: 780-422-7617



Office of the Information and
Privacy Commissioner of Alberta

VIA Email

March 21 2019

Jenny Tremblay
Director General
Smart Cities Challenge Directorate

Re: City of Airdrie County Smart Cities Preliminary PIA

Dear Ms. Tremblay:

I am writing to outline the results of our engagement with the City of Airdrie and the review of its Smart Cities project (the project) preliminary privacy impact assessment (PIA).

The City of Airdrie engaged with our office to discuss possible privacy issues, including a meeting to discuss privacy impact assessment requirements related to the project.

We received the project PIA on February 13, 2019. Our review of the PIA focused on the Finalist Guide, Appendix 3 considerations:

- Description of personal information or personal health information to be collected, used or disclosed (CUD);
- Information flow map that outlines each CUD of personal information or health information, with a corresponding legal authority table for each flow;
- Description of who you will collect personal information or health information from to enable the project with assessment of that person's authority to disclose the information;
- Information governance plan;
- Organizational privacy management framework, including related organizational access, correction, privacy and security policies; and
- A plan that outlines the way in which you will consider privacy and security risks throughout the process including to complete a comprehensive PIA.

On February 15, 2019, we wrote to City of Airdrie to outline the results of our review. We asked that they respond to our questions and comments on or before March 5, 2019, and should the response identify a gap, to provide a plan that would outline how it will be addressed.

On February 26, 2019, the City of Airdrie provided our office with a significantly revised and improved PIA. That being said, some gaps have been identified and further privacy assessment will be required to ensure they are addressed. The following key gaps are important to note and ensure there is a clear commitment to address them should the project proceed:

- A more fulsome understanding of information sharing, data matching and integration is required, as well as further assessment to ensure there is legal authority for collection, use and disclosure of information in the project;


Head Office, 410, 9925-109 Street NW, Edmonton, Alberta, Canada, T5K 2J8 telephone: 780-422-6860 toll-free: 1-888-878-4044
fax: 780-422-5682 web: oipc.ab.ca email: generalinfo@oipc.ab.ca

- Robust privacy and security assessment will be essential to ensure risk has been properly identified and reasonable steps taken to develop and maintain administrative, technical and physical safeguards to reasonably mitigate risk to protect Albertans' personal or health information;
- An organizational privacy management framework has been provided, but it is incomplete. The City of Airdrie has completed a gap assessment and commits to addressing the gaps that have been identified; and
- Comprehensive notification to an Albertan who participates in the project will be required to ensure their authorization is informed, the purpose for collection, use or disclosure is clear and they understand the risks and benefits of consenting or refusing to consent.

The PPIA provides a useful point in time opportunity to understand and address possible privacy implications of the project. We understand that the project will continue to be developed, and therefore it will be important to ensure ongoing privacy risk assessment is undertaken.

The City of Airdrie should be required to continue its engagement with our office to address the matters identified above, and any other risks that may arise as the project proceeds. We will complete a comprehensive assessment of the steps taken to consider and reasonably mitigate privacy risk when the final PIA is submitted.

Sincerely,


LeRoy Brower
Assistant Commissioner

c: Leona Esau, Project Lead, City of Airdrie
Sharon Pollyck, FOIP Head and Director, CAO's Office, City of Airdrie
Kim Kreutzer-Work, Director, Knowledge Management, OIPC

**APPENDIX D: PRELIMINARY PRIVATE IMPACT ASSESSMENT DOCUMENTS AND LETTER FROM
THE OFFICE OF THE INFORMATION AND PRIVACY COMMISSIONER**





Office of the Information and
Privacy Commissioner of Alberta

February 15, 2019

Ms. Leona Esau
Project Lead
City of Airdrie
400 Main Street SE
Airdrie, AB T4B 3C3

Re: Airdrie Smart Cities Preliminary PIA

Dear Ms. Esau:

I am writing in response to your preliminary privacy impact assessment (PIA) on Airdrie's Smart Cities project (the project), which our office received on February 13, 2018. Congratulations for being a finalist in this important competition.

The PIA has been submitted approximately three weeks prior to the March 5th final proposal deadline, which leaves minimal time for our office to complete a comprehensive review and provide the City of Airdrie with comments that may be responded to and addressed before that time. As a result, we have decided to focus our review of the preliminary PIA to broad and significant matters in an effort to help the City of Airdrie understand where there is a gap and work to be completed. Our comments focus on the Finalist Guide, Appendix 3 requirements, which are:

- Description of personal information or personal health information to be collected, used or disclosed (CUD);
- Information flow map that outlines each CUD of personal information or health information, with a corresponding legal authority table for each flow;
- Description of who you will collect personal information or health information from to enable the project with assessment of that person's authority to disclose the information;
- Information governance plan;
- Organizational privacy management framework, including related organizational access, correction, privacy and security policies; and
- A plan that outlines the way in which you will consider privacy and security risks throughout the process including to complete a comprehensive PIA.

General comments

The preliminary PIA for this project should describe the integration between all elements of the project, including the My Airdrie Portal, the HealthSmart Hub and the HealthSmart App and dashboards. Insufficient information has been provided to describe how these interact, integrate, and the flow of personal or health information between them. Pieces of information have been provided, but this information isn't tied together to provide a comprehensive picture of the project as whole, without which legal authorities and privacy risk assessment cannot be completed.

Head Office, 410, 9925-109 Street NW, Edmonton, Alberta, Canada, T5K 2J8 telephone, 780-422-6860 toll-free, 1-888-878-4044
fax, 780-422-5682 web, oipc.ab.ca email, generalinfo@oipc.ab.ca

Specific comments

Description of personal or health information

- The preliminary rationale assessment in relation to the HealthSmart Hub says that only aggregate, anonymized or de-identified information is stored within the Smart Hub. Please describe the steps taken to ensure the data is as described, and also outline the steps taken to assess risk that the data could be re-identified. In addition, please outline what steps are taken to protect against this data being subsequently linked or data-matched, which could then lead to the data being re-identified.

Information flow map and legal authority table

- Please provide the required information flow map and legal authority table.

Describe who information will be collected from with corresponding legal authorities

- This may also be included within the information flow map and legal authority table.

Information governance plan

- We recognize that City of Airdrie governance information has been provided, but what is missing is a governance plan specific to this project that involves the Airdrie and Area Health Benefits Cooperative as a partner.

Organization privacy management framework

- We are pleased to see that a compliance assessment has been undertaken. This assessment is based on PIDEA and therefore it may not adequately address Alberta privacy law requirements. Nevertheless, it is a good starting point for assessing where there are gaps.
- An organizational privacy management framework and related organizational policies is a Finalist Guide requirement. We see that the City of Airdrie has provided some policies but they are incomplete. Please provide a comprehensive privacy management framework and related policies. I've provided a link below to organizational privacy management framework guidance issued by our office.
 - https://www.oipc.ab.ca/media/383671/guide_getting_accountability_with_privacy_program_apr2012.pdf

Privacy and security risk plan

- The Finalist Guide requires a plan that outlines the way in which privacy and security risk will be considered throughout the project, including completing a comprehensive PIA. Please provide a plan that outlines the steps that will be taken as the project proceeds to ensure proper consideration of privacy risks, which eventually will conclude with completion and submission of a final PIA.

We want to be transparent that due to the timing of the submission that is quite close to the March 5th deadline, we completed a quick and cursory review of the preliminary PIA. We did this in an effort to provide comments with enough time remaining that the City of Airdrie can consider them and respond on or before March 5th. The downside of this approach is that we may have overlooked or miss-understood something in our review, and would encourage the City of Airdrie to point this out as needed.

We understand that you may not be able to address all of our questions or comments by March 5th. Alternatively, you may provide a detailed plan that outlines how the question or comment will be addressed between now and implementation of the project and submission of the final PIA.

We request that you provide us with responses to our questions and comments on or before March 5th, and a copy of your final preliminary PIA that is submitted to Infrastructure Canada. Should your response identify a gap, please provide a plan that outlines how that gap will be addressed.

We will be providing Infrastructure Canada with comments based on the information you provide to us on or before March 5th.

We will complete a further comprehensive review of the final PIA should this project proceed.

Please contact Ms. Kreutzer-Work or me if you have any questions.

Sincerely,



Leroy Brower
Assistant Commissioner

c: Sharon Pollyck, FOIP Head and Manager of Legislative Services
Kim Kreutzer-Work, Director, Knowledge Management, OIPC



Office of the Information and
Privacy Commissioner of Alberta

February 13, 2019

Ms. Sharon Pollyck
FOIP Head and Manager of Legislative Services
City of Airdrie
400 Main Street SE
Airdrie AB T4B 3C3

Dear Ms. Pollyck:

**RE: Smart Cities Challenge: HealthSmart Community Operating System
Privacy Impact Assessment
OIPC File #: 011057**

I am writing to notify you that I have received the above referenced Privacy Impact Assessment (PIA), submitted under the *Freedom of Information and Protection of Privacy Act* (FOIP). This acknowledgement of receipt confirms that you have submitted a PIA for review and comment. The submission of a PIA is not a waiver of any provision of FOIP nor is it certification that the program complies with the FOIP.

Please note that our process for assigning PIAs for review has changed. **PIAs will be assigned to a manager for review as soon as possible; however, this may take up to 4 months.**

The case file number assigned to this PIA is 011057. Please quote this number when contacting our office or providing any further correspondence on this file. Please retain this letter as it is proof of your submission.

Sincerely,


Jill Clayton
Information and Privacy Commissioner
/gc

City of Airdrie

Privacy Management Program Self-Assessment

The City of Airdrie is committed to ensuring an effective Privacy Management Program is in place. Regardless of the success of the Smart Cities Challenge application, the City commits to implementing the program as outlined below.

Element	Status	Comments
Organizational Commitment		
Buy-in from the top	✓	The CAO and Senior Leadership are committed to ensuring compliance with privacy legislation.
Privacy Officer/FOIP Head	✓	City Council has appointed by bylaw the City Clerk (Director of the CAO's Office) as the FOIP Head, who is responsible for overseeing the City's compliance with FOIP.
Privacy/FOIP Office	✓	The role of the FOIP Office has been defined and its resources have been identified and are adequate. Four employees, excluding the FOIP Head, have FOIP responsibilities built into their portfolios. FOIP is in addition to other responsibilities. Although we do not have a formal monitoring program, staff do foster a culture of privacy within the organization. Monitoring occurs informally and organically. The Office works to ensure that privacy protection is built into every major function involving the use of personal information, including product development, customer services or marketing initiatives. Awareness is at a level where departments are very good at bringing the FOIP Office into new or changing initiatives.
Reporting	X	<p>No internal reporting structure has been established.</p> <p>A Breach Management Process has been drafted and will be taken forward to the Senior Leadership Team for adoption within the next 3 months.</p> <p>Remedy: The City is committed to reaching out to similar sized municipalities (Grande Prairie, Lethbridge, Medicine Hat, Red Deer, St. Albert) to see what they have in place. A reporting framework will then be developed.</p>

Element	Status	Comments
Program Controls		
Personal Information Inventory (PIBs)	Partial	<p>The City has determined and maintains PIBs. The City knows:</p> <ul style="list-style-type: none"> • what personal information it holds and where it is and document this assessment; and • why it is collecting, using or disclosing personal information and document these reasons. <p>Remedy: The City needs to extend its PIBs to include third party information and the sensitivity of the personal information it holds.</p>
Policies	X	Remedy: The City is committed to reaching out to similar sized municipalities (Grande Prairie, Lethbridge, Medicine Hat, Red Deer, St. Albert) to see what they have in place. A policy framework will then be developed – the City has earmarked the need to complete a Personal Information Standard as a part of the Corporate Information Governance Framework.
Collection, use and disclosure of personal information, including requirements for consent and notification	X	Employees are aware of their obligation through training/education.
Access to and correction of personal information	X	Employees are aware of their obligation through training/education. The recently adopted Corporate Information Governance Framework speaks to this responsibility. City staff have met with every department in the City to share the Framework.
Retention and disposal of personal information	✓	The City has a Retention and Disposition Bylaw, Retention Schedule and Retention Schedule Change Process in place. Paper records are reviewed and appropriately disposed of on an annual basis. The City is currently implementing an EDRMS system (SharePoint) with a records management bolt on (Gimnal). All digital records within the organization should be managed in accordance with the Bylaw and Schedule by Q4 2022.
Responsible use of information and information technology, including administrative, physical and technological security controls and appropriate access controls	X	Employees are aware of their obligation through training/education. The recently adopted Corporate Information Governance Framework speaks to this responsibility – specifically the Information Security

		<p>Classification Standard and Handling Process. City staff have met with every department in the City to share the Framework.</p> <p>Role-based access control is accomplished through New/Move/Remove User Request Forms managed through IT. Additional systems (financial, budget, addressing) require additional permissions, again managed by IT. These are audited by our external auditors on an annual basis.</p>
Challenging compliance	X	Employees are aware of their right to complain about the City's information handling practices, but this has not been formalized in policy.
Privacy compliance added to ancillary corporate policies	X	Remedy: An action plan will be developed to add privacy compliance requirements in other City policies.
Risk assessment tools	✓	<p>The City has adopted, as a part of the Corporate Information Governance Framework, a Business System Assessment process that analyzes the risk and security at two stages of the system acquisition process – at the initial stage once Director approval to proceed has been obtained (prior to determination of requirements to assist with the development of requirements) and at the selection stage. If personal information is identified at Stage 1, a PIA is completed and then reviewed at Stage 2. Under the Framework, there is a formal approval process. This process is followed for a new acquisition, a major upgrade or the additional of a new module.</p>
Training and education	Partial	<p>The Service Alberta general awareness training for municipalities is mandatory training for all City employees. Legislative Services staff and key IT staff are required to take the 3-day comprehensive FOIP training program. Privacy is covered at orientation for new employees.</p> <p>The Corporate Information Governance Framework, employee acceptance letters, and Computer Use Policy all speak to the proper handling of personal information and the employee's responsibility therefor.</p> <p>Remedy: The City will develop a plan to ensure refresher FOIP training occurs.</p>
Breach and incident management response protocols	✓	The City has a Breach Management Process in draft form that will be presented to the Senior Leadership Team for endorsement within the next 3 months.

Service provider management	Partial	<p>The City requires contracts where third parties are provided with personal information. Although FOIP clauses are leveraged, they are not to the extent recommended by the OIPC.</p> <p>Remedy: Work with Procurement and other departments to develop and implement contractual responsibilities as recommended by the OIPC.</p>
External communication	X	<p>Although the City provides information on its website, it is not to the extent recommended by the OIPC.</p> <p>Remedy: Develop and implement a procedure for informing individuals of their privacy rights and the City's program controls as recommended by the OIPC.</p>

Element	Status	Comments
Ongoing Assessment and Revision		
Develop and Oversight and Review Plan	X	Remedy: The City is committed to reaching out to similar sized municipalities (Grande Prairie, Lethbridge, Medicine Hat, Red Deer, St. Albert) to see what they have in place. An oversight and review plan will then be developed.
Assess and Revise Program Controls		
Monitor and update personal information inventory	✓	Monitoring of PIBs occurs on an ongoing basis to keep the inventory current and identify and evaluate new collections, uses and disclosures.
Review and revise policies	X	Remedy: As policies are developed (as outlined above), evergreen clauses and a commitment to review will be included.
Treat PIAs and security threat and risk assessments as evergreen documents	✓	The use of BSAs and PIAs is an evergreen process at the City. BSAs and PIAs, if required, are completed for new and changing initiatives.
Review and modify training and education	Partial	<p>The City currently uses the Service Alberta general awareness FOIP training for municipalities. FOIP staff have identified the need for a higher level, organization specific training.</p> <p>Remedy: Revamping FOIP training has been identified as a 2019 business unit goal. It is anticipated this will be completed by year end. A modified FOIP training module will be added to new employee orientation by year end.</p>
Review and adapt breach and incident management response protocols	X	As the Breach Management Process is newly drafted and due to be adopted by the Senior Leadership Team within 3 months, an evergreen review clause will be added to the document.
Review and, where necessary, fine tune requirements in contracts with service providers	✓	<p>As outlined above, FOIP staff work with Procurement and other departments to ensure contract clauses are sufficient. A commitment has been made above to further review contract clauses in the short term.</p> <p>Remedy: A review process will be established for the future.</p>
Update and clarify external communication	✓	As outlined above, a commitment has been made for FOIP staff to develop and implement a procedure for informing individuals of their privacy rights and the City's program controls as recommended by the OIPC. This will be done in the near future.

		Remedy: A review process will be established for the future.
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Preliminary Privacy Impact Assessment

Project Name: City of Airdrie Smart Cities Challenge
HealthSmart Airdrie

Custodian: City of Airdrie

Contact Information: Sharon Pollyck
FOIP Head
City of Airdrie
400 Main Street SE
Airdrie, AB T4B 0R5

Telephone: 403-948-8800 extension 8754
Email: sharon.pollyck@airdrie.ca

Submission Date: February 25, 2019

Implementation Date: TBD

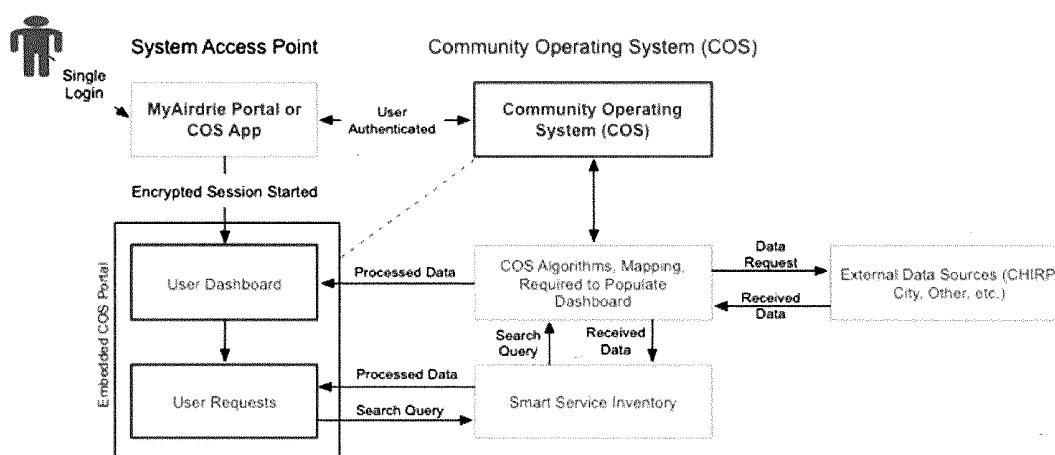
OIPC File Reference: N/A

Section A – System or Practice Summary

1. What does the information system or administrative practice do?

The HealthSmart Community Operating System (“COS”) will enable users to access and display information from disparate sources. By accessing information about the Social Determinants of Health (“SDOH”), the partnership (City of Airdrie and Airdrie and Area Health Benefits Cooperative) believes that users will be better able to own their own health thereby making progress towards our Smart Cities Challenge statement of extending healthy life expectancy by 3+ years within 5 years.

How the system works is outlined below.



MyAirdrie Portal

Users will access the COS through either the MyAirdrie portal or the HealthSmart App (“App”). The MyAirdrie portal and App are the front doors into the COS.

City of Airdrie residents are currently able to access many City services (such as, paying for utilities and bylaw tickets, animal licensing, business licensing, viewing of assessment and taxation information, obtaining tax certificates, booking recreation program and facilities, receiving service disruption and emergency notifications) through a single sign-on process. The Smart Cities Challenge would allow residents to leverage this single sign-on process to access the COS, which would enable residents to access de-identified information. This service would be added to the MyAirdrie suite of services.

HealthSmart COS

The COS will facilitate the flow of information to and from other sources to be displayed temporarily on the user’s dashboard.

The COS will be comprised of four main components.

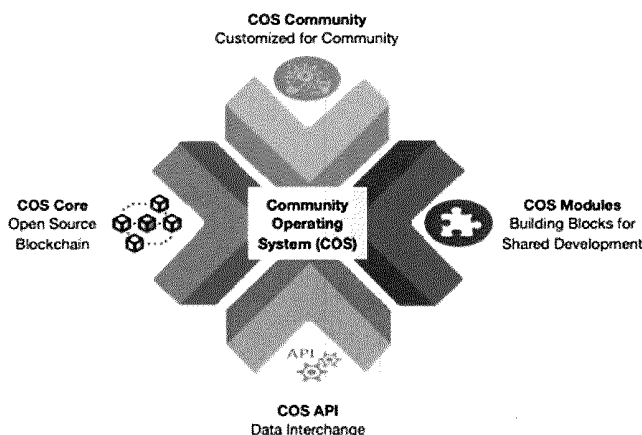
COS Core

Built using open source blockchain, COS Core will establish an infrastructure and provide foundational components such as authentication, access, and security. User permissions and authentication will be vital to establishing a private and secure infrastructure to build upon.

COS Community

COS Community will be the efforts taken to customize the core to the needs of a community.

Customization would include administrative tools and configurations, algorithms, logic and capacity for system learning and evolution over time. We will establish a standardized set of development protocols without the constraint of a single development language. COS Community will be compatible with a wide array of development languages (Python, NodeJS, Java, etc.) allowing for increased interoperability, innovation and shared expertise.



COS API (Application Programming Interface)

A Master Application Programming Interface (COS API) will be developed, enabling a comprehensive data interchange and providing a central mapping and access point for data sharing. The COS API fosters interoperability through defining protocols and standards for system connectivity and information sharing. Wherever possible, information from external data sources is expected to be de-identified prior to entering the COS API. This will be a contractual component of the Information Sharing Agreement (ISA). In the event de-identification at the source is not possible, a de-identification algorithm will be run to remove any potential identifiable data elements prior to the data entering the COS. Dashboards and user specific views and data is made possible through unique data keys which require two levels of authentication – one from the user and one from the originating data source. These views allow for the data to be temporarily re-identified through a user initiated encrypted session. Once the user's session is terminated, all data will be flushed from the COS.

COS Modules

Taking a modular approach will improve collaborative efforts as development will not be confined to one vendor. COS Modules provide building blocks for shared development and innovation. We will be providing the capacity for new and existing applications to connect with the COS. COS Modules will be based on best practices/industry standards, allowing for future friendly development and additions based on community needs and technology advancements.

The COS will be a secure data exchange platform. Built using blockchain technologies, the COS provides a secure medium to receive, validate and share data for the purpose of providing actionable health insights to individuals, organizations, and the community as a whole. Data will be transactional and not stored within the COS. Data storage will be managed by the external data source systems in which data originates. Stored data by the COS is for the use of verification, security, mapping, and utilization of data, not the data itself. No individual or identifiable data will be stored. The COS blockchain will utilize a private ledger and will include data mapping, integrity monitoring, and provenance reports for all shared data. The COS will be subject to regular data quality assurance processes that address data mapping, profiling, cleansing and monitoring of data quality and integrity. Quarterly security audits will be implemented addressing system security, specifically validating no identifiable data is ever stored.

Integrated data is necessary to support our efforts in becoming Canada's healthiest community. Through a dedicated app (web – MyAirdrie Portal; mobile – to be developed) COS supports the ability to provide necessary information and reporting through dashboards to provide a measurement of healthy life expectancy. Information dashboards provide baselines, time trends, and performance outcomes. Data specific to the user is able to be displayed temporarily through an encrypted session validated by the user. Aggregated, de-identified data may also be surfaced to provide the user with comparative insights. Upon completion of the user authenticated session, all encrypted data is flushed and removed completely. The COS will support the capacity to authenticate and manage encrypted sessions through the use of standard security protocols, providing support for OpenID Connect, OAuth 2.0, and SAML. Users will have full transparency to session usage and connections through detailed audit and security logs.

HealthSmart App

The App will be an interface to individuals, groups, organizations, and the community to information. Available through any platform, the App will act as a “way finder for health,” providing insights through a smart service inventory and user managed dashboards. The code required to connect and integrate data into the App will be provided to other municipalities.

HealthSmart Plug-ins

Plug-ins (works with) will connect apps and services (external data sources) based on specific use cases and community needs and will evolve over time. Interoperability is a core function of the COS. For every connection made, the partnership will be providing learning for other communities, including a connection “recipe book,” experiential learning, and policies.

2. What is the business rationale for the project?

Information is housed in many different places across the municipality, province, country and world. When searching the Internet for information, users are not always sure of the credibility and reliability of the information that is displayed. Often, it is difficult to find local information. The City of Airdrie has a vision of becoming Canada's healthiest community. Our Smart Cities Challenge statement is to extend healthy life expectancy by 3+ years

within 5 years. To do this, residents need to own their own health and become knowledgeable about the impact of the SDOH. This information needs to be reliable, credible, current and local. This COS will allow us to do this.

The COS supports the City of Airdrie's vision of becoming a community that provides evidence-informed, citizen centric, quality services. It will do this by providing a medium (through the App) that provides data insights informing and encouraging citizens, organizations, and the community as a whole towards better health. It will help to break down silos across the community by providing access to credible local information from external data sources.

This will be measured through the calculation of a healthy life expectancy. Integrated data will be required to inform, guide, and motivate individuals, organizations, and the community as a whole. Integrated data will also provide analysts with the ability to provide necessary reporting and measurements in order to monitor strategies related to the outcomes of user engagement, increased well-being, increased health outcomes, and improved resource use. These four objectives have been identified as key components to achieving an increased healthy life expectancy.

Through a data quality process that addresses data mapping, profiling, cleansing and monitoring of data quality and integrity, the COS enables consistent reporting. It also provides more timely measures by simplifying key processes to access data for secondary reporting. It provides an environment to match and analyze data sets from multiple contributing sources for measurement and analytics.

It also provides stakeholders with a single point of contact to access data required for their increasing requirement to provide mandatory reporting and measures.

3. *Who are the key players?*

The key players in this partnership and the Smart Cities Challenge are the City of Airdrie ("City") and the Airdrie & Area Health Benefits Cooperative ("AAHC"). Each partner contributes varying degrees of expertise in the areas of leadership, governance, risk and compliance, information technology, privacy, legal and health.

The information needed to make the COS robust will come from the City, AAHC and external data sources. Information sharing agreements will be entered into with external data sources.

4. *Where will personal information be stored and accessed?*

No health information will be stored or accessed.

MyAirdrie Portal

The MyAirdrie portal has been identified as the web portal for the COS. A single-sign on from the MyAirdrie portal will allow users to authenticate to the COS and display COS dashboards and information through embedded and encrypted web technologies (e.g.,

iFrame). The MyAirdrie portal is an existing system managed by the City independently of the Smart Cities Challenge.

The MyAirdrie Portal collects credential information to allow for signup (this includes email address and password). MyAirdrie uses account verification to ensure email addresses are valid. Passwords are stored as a hashed value and cannot be reverse-engineered externally or internally. During sign-up, first and last name is optional and used only for personalizing the login page or prefilling of forms.

The MyAirdrie portal collects additional information depending on the service being requested. Phone numbers are collected as additional information for the purposes of providing text notifications. This collection is optional. Account numbers are attached to a resident's municipal address, which is linked to their credentials during sign up. No disclosure of personal information takes place. When registering for recreational programs or booking of facilities, users are redirected to the City's recreation management site. Utility users are redirected to the financial systems database. These functions are optional for users. Credit/debit card information is being disclosed to the payment processor as a flow through. If the user consents to having credit/debit card information stored, processing of payments is done through a token process and MyAirdrie stores no credit/debit card information. Should a user choose to provide optional banking information for pre-authorized payments, this banking information is stored on the external database within the City's firewall. A subset of pre-authorized payment information is replicated each evening to a separate database which is on premise.

HealthSmart COS

User access to the COS will be facilitated through the MyAirdrie Portal or App. No personal information will be stored or accessed.

The COS ledger and supporting databases will be stored at a secure data center located within Canada. We have identified potential hosting services in Alberta (Rogers, Q9, Datahive, etc.), Montreal (AWS), and Toronto (MS Azure). Administrative access to the database is available only through authorized network account and password as well as through an authorized administrator COS user account and password. COS databases may also be disclosed to authorized external parties for the purposes of auditing and systems security checking.

For both the web and mobile versions of the COS, additional security protocols such as timed logouts, location spoof checking, and forced login update protocols will be incorporated.

HealthSmart App

The App will be accessed either through an embedded web portal or through a native mobile app (iOS/Android). No personal information will be stored or accessed. User authentication will occur through the use of standard security protocols, such as, OAuth 2.0.

Native, encrypted mobile apps will be developed for Apple and Android devices. Using device security protocols, users will have the ability to customize the amount of time for data to be cached, allowing for the capacity to view offline.

Users will have the capacity to share information with other users, including friends, family, providers, etc. Information sharing will require an additional level of consent and individuals or organizations wishing to share data will need to explicitly identify which data elements are to be shared. Generalized sharing will not be permitted. Users whose data has been shared with will also require additional consent to receive and view shared information. Consent and access forms are currently under development.

HealthSmart Plug-ins

ISAs will be established with each connected external data source. Contained within the ISA will be a list of accessible data elements and purpose of use statements. Updates/changes to accessible elements will require amended ISAs. Protection of personal information stored within an external data source will be the responsibility of the external data source. Only de-identified information will be permitted to flow to the COS.

5. *Why does the project need to collect, use or disclose personal information to achieve its objectives?*

No health information will be collected, used or disclosed.

MyAirdrie Portal

As MyAirdrie allows a resident/taxpayer to conduct business with the City, personal information must be collected to match a user with their property or services. If a resident/taxpayer chooses not to access City services through MyAirdrie, no personal information is collected.

HealthSmart COS, HealthSmart App

In order to meet the ongoing and future requirements to provide necessary measurements and reporting for citizens, organizations, and the community, the COS will, through a secure, temporary, and user authenticated session integrate data from disparate information systems into a customized dashboard. Information displayed in the encrypted session will be a mix of identifiable at the individual or organization level to enable both longitudinal analysis and analyses across the journey towards better health. All information is encrypted and immediately disposed of once a session is closed. Only basic transactional data, indicating a session occurred and what connections were made is stored in the COS ledger. Contents of the ledger are encrypted and are only viewable through authentication by authorized parties.

HealthSmart Plug-ins

The external data source that chooses to share information with the COS will have already been collecting the personal information within their system. ISAs will ensure that the

external data source has complied with the requirements of their legislative authority and FOIP, as the receiving party. Consent will be mandatory on both sides (the external data source and the user) for the information exchange to occur.

Section B – Organizational Privacy Management

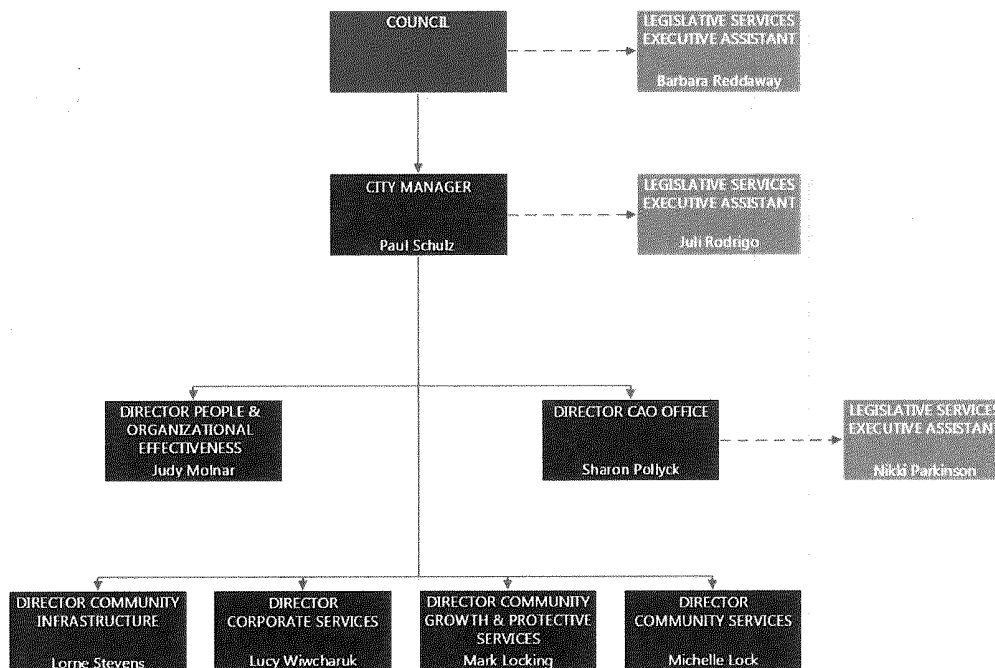
As the City is held to the highest standard for the management of personal information between the two partnership organizations, any work done with respect to the Smart Cities Challenge will be governed by and conducted under the City's Corporate Information Governance Framework.

Management Structure

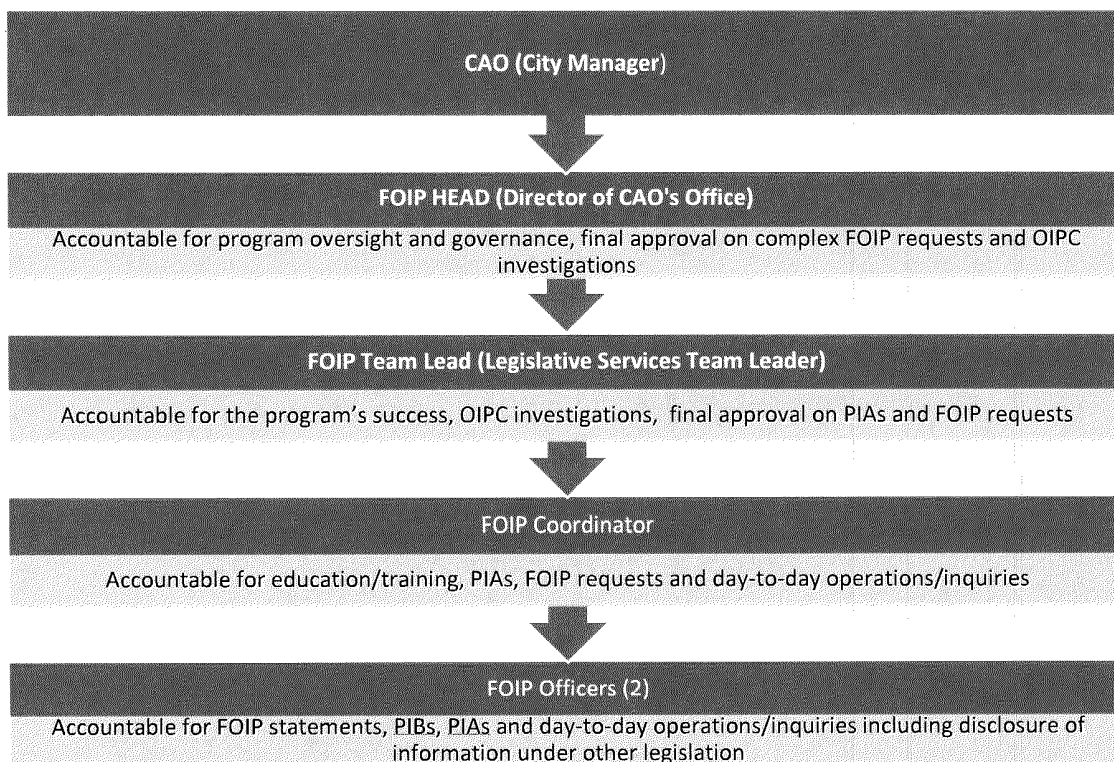
1. How is your senior management involved in decision-making related to privacy?

Senior Management endorsed the City's Corporate Information and Governance Strategy, Policy and Framework. An Information Governance and Management Steering Committee with corporate-wide representation has oversight of the City's information framework.

Senior Management is not directly involved in day-to-day decision-making. The FOIP Act is used and applied to privacy issues and any matters related to the life cycle of personal information. Staff seek advice and guidance from internal FOIP professionals. Where required, legal counsel is sought. The City's management structure is illustrated below. The Director of the CAO's Office is the FOIP Head.



The City's privacy structure is as follows:



Policy Management

2. How do you develop, approve and implement privacy policies?

Privacy policies are developed by the Information Governance and Management Team or Legislative Services Team. The Legislative Services Team has oversight for any matter to which the FOIP Act could be applied. These policies are then reviewed and approved by the Information Governance and Management Steering Committee. After this approval is received, policies are put before the Senior Leadership Team for endorsement. Once approved, policies are communicated to the organization via email. They are then incorporated into the City's orientation training module on information governance for new employees. Information governance policies are set on a maximum 5 year review cycle.

Training and Awareness

3. How are your employees and contractors been trained in privacy?

Employees must take the online FOIP course for public bodies that is offered by Service Alberta. New employees must take the training within the first month of commencing employment at the City. Training is confirmed prior to receiving any access to personal information. If training is more than 3 years old, employees must re-take the Service Alberta

training model. The Corporate Information Governance Framework is a training module for all new employees. Typically, an employee would receive this training approximately 4-6 weeks after commencing in their role. The City's Avanti payroll system keeps track of employees' privacy training. Legislative Services has included in their 2019 business plan the review of employee FOIP training. The business unit has identified a need for specific City FOIP training and plan to create a training program that will follow the Corporate information and governance training. A plan for refresher training will be put into place at the same time.

Legislative Services and key IT staff attend the comprehensive provincial 3-day FOIP training. One Legislative Services staff member is pursuing her CIPP designation. Vendors are advised of the requirement to adhere to FOIP through the contract process.

Incident Response

4. How do you identify, investigate and manage privacy incidents.

Staff are trained in identifying breaches and are to bring these incidents to the attention of the FOIP Team Lead and FOIP Head. The breach is investigated by the Team Lead, any systems to prevent future breaches are put in place, and the FOIP Team Lead, together with the FOIP Head, determine whether the City Manager, Senior Leadership Team, and the Office of the Privacy Commissioner need to be informed of the breach. The City's new Breach Management Process has been completed will be rolled out to staff shortly to increase staff's awareness of what a breach is and the process for alerting the FOIP Team Lead of the breach.

Access and Correction Requests

5. How do you manage requests from individuals to access their own information and make corrections?

Requests are to be made in writing to the City and identification is to be provided to confirm that the person requesting the correction is the owner of the information. An individual can appeal to the FOIP Team Lead for a final decision. Should the City refuse to correct the information, the requestor is provided with the information required to request a review by the Privacy Commissioner.

Section C - Project Privacy Analysis

1. Personal Information Listing

No health information will be collected, used or disclosed.

MyAirdrie Portal

Type of Information	Data Elements	What is the purpose for the collection, use or disclosure of each data element?	Source of Information
Credential Information	<ul style="list-style-type: none"> • Contact email address • Passwords stored as hashed value and cannot be reverse-engineered externally or internally 	Collection <ul style="list-style-type: none"> • Sign up for access to services • Account verification • System authentications • Data matching • Internal management purposes 	User
Credential Information	Optional: <ul style="list-style-type: none"> • First and last name (individual or organization) 	Collection, use <ul style="list-style-type: none"> • Personalizing login page • Prefilling of forms 	User
Credential Information	Optional: <ul style="list-style-type: none"> • Phone number 	Collection, use <ul style="list-style-type: none"> • Providing text notifications 	User

HealthSmart COS, HealthSmart App

No personal information will be collected, used or disclosed.

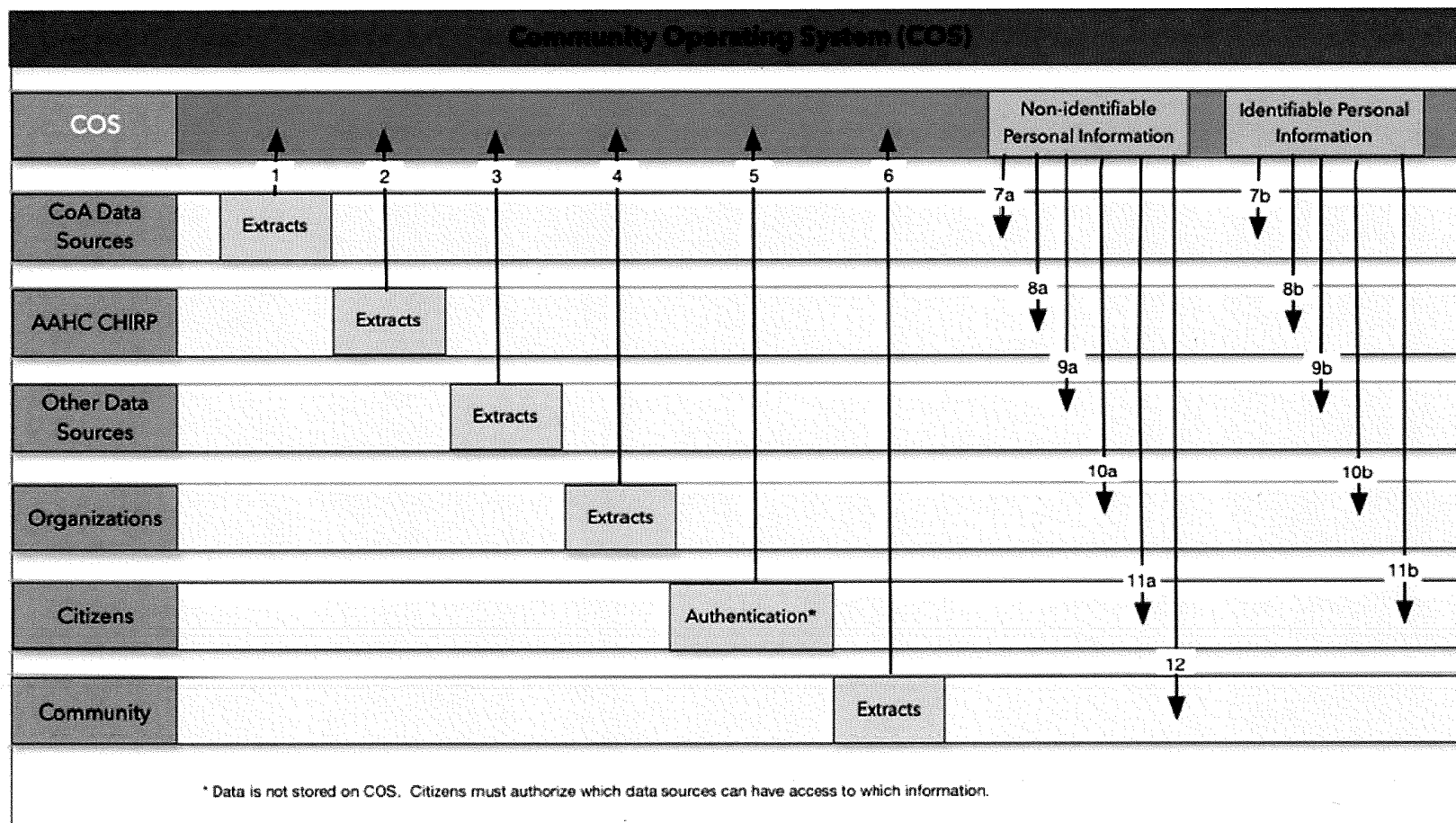
Data will be transactional and not stored within the COS or App. Stored data by the COS is for the use of verification, security, mapping, and utilization of data, not the data itself. As data contained within the COS is for administrative purposes, it is important to note that elements will not be available to non-system administrators.

HealthSmart Plug-ins

All personal information will be managed by the system in which it originates held and managed by the external data source.

2. Information Flow Analysis

a. Information Flow Diagram



No health information will be collected, used or disclosed.

b. Legal Authority and Purpose Table

Legal Authority and Purpose Table				
Flow #	Flow Description	Type of Information	Purpose	Legal Authority
1	<p>City data sources managed through the City's information assets platform, including census, business directory, and recreation services.</p> <p>COS retrieves data through a direct connection to the source system. Data is retrieved on-demand and is not stored in COS.</p> <p>A schema of the applicable elements of the City's data, enabling mapping and connectivity, will be stored in the COS.</p>	Can include both identifiable and non-identifiable information depending on the use case and where request for data originates.	<p>Census</p> <ul style="list-style-type: none"> To act as a denominator for measurements of engagement. To provide aggregate information for comparative reporting and analytics. <p>Business Directory</p> <ul style="list-style-type: none"> To use for information source for local services in relation to health. <p>Recreation Services</p> <ul style="list-style-type: none"> To provide information regarding utilization for information guiding health impact, planning, and resource allocation. <p>To support mandatory performance reporting for Smart Cities Challenge.</p> <p>Data matching supports the purposes listed above.</p>	<p><i>Freedom of Information and Protection of Privacy Act (FOIP)</i></p> <p>Collection s. 33(c) Use, Disclosure s. 39(1)(a),(c) and as otherwise authorized by FOIP</p> <p>Original data sources and storage managed by the City.</p>
2	<p>AAHC CHIRP is data that is housed with AAHC as an external data source. CHIRP will contain health and wellness data including wellness and population health, health outcomes, health utilization, and survey data.</p> <p>COS retrieves data through a direct</p>	Can include both identifiable and non-identifiable information depending on the use case and where the request for data originates.	<p>To support planning, improvement, measurement of Smart Cities proposal outcomes of engagement, improved well-being, improved health outcomes, and improved resource use.</p> <p>To provide users with information to allow for "Owning Own Health".</p>	Original data sources and storage managed by the AAHC as an external data source. CHIRP has not yet been developed and will be in development in parallel (but not inclusive) with the Smart Cities project and COS.

	<p>connection to the source system. Data is retrieved on-demand and is not stored in the COS.</p> <p>A schema of the applicable elements of the CHIRP data, enabling mapping and connectivity, will be stored in the COS.</p>			<p>External data sources are required to manage any personal information and will be required contractually to comply with their legal authority. Prior to connection to the COS, proof of an accepted PIA will be required.</p>
3	<p>Other Data Sources will be any data source that is managed outside of either the City or the AAHC.</p> <p>Examples could include activity data repositories (e.g., Fitbit); open data repositories (e.g., Alberta Open data); government managed repositories (e.g., StatsCan, CIHI, etc.)</p>	<p>Can include both identifiable and non-identifiable information depending on the use case and where request for data originates.</p>	<p>To support planning, improvement, measurement of Smart Cities proposal outcomes of engagement, improved well-being, improved health outcomes, and improved resource use.</p> <p>To provide users with information to allow for "Owning Own Health".</p>	<p>External data sources are required to manage any personal information and will be required contractually to comply with their legal authority. Prior to connection to the COS, proof of an accepted PIA will be required.</p>
4	<p>Organizations may provide organizational specific data.</p> <p>For example, the local food bank may share information about food inventory and associated needs. A school may share information about programs and services. Etc.</p> <p>Depending on use case and end user, nature of data is variable.</p> <p>An organization may also have an assigned account and will have the ability to manage authentication and access to connected sources.</p>	<p>Can include both identifiable and non-identifiable information depending on the use case and where request for data originates.</p>	<p>To support planning, improvement, measurement of Smart Cities proposal outcomes of engagement, improved well-being, improved health outcomes, and improved resource use.</p> <p>To provide users with information to allow for "Owning Own Health".</p>	<p>External data sources are required to manage any personal information and will be required contractually to comply with their legal authority. Prior to connection to the COS, proof of an accepted PIA will be required.</p>

5	Citizens will be the leading component for connections and authorization of data use. Connections will exist, however, data will not be able to be transferred without authentication and consent by individuals.	Non-identifiable data.	To authenticate and provide consent to existing data sources connected to the COS.	Mapping and algorithmic data is stored by COS.
6	Community information may be collected via surveys, IoT, or other smart type devices.	Can include both identifiable and non-identifiable information depending on the use case and where request for data originates.	To support planning, improvement, measurement of Smart Cities proposal outcomes of engagement, improved well-being, improved health outcomes, and improved resource use. To provide users with information to allow for "Owning Own Health".	External data sources are required to manage any personal information and will be required contractually to comply with their legal authority. Prior to connection to the COS, proof of an accepted PIA will be required.
7a 7b	As disparate data sources are connected, originating data sources will have the capacity to view a City dashboard and applicable reports. There may be the capacity for storage and capture of additional elements that are made available through the COS. This can only be done through consent of data owner (individual) and custodian (original data source). COS will restrict the ability to save or import data without appropriate consents. Attempts to download or import non-consented data will be flagged through audits and results to user will appear as an encrypted uninterpretable hash.		Becoming Canada's healthiest community will require involvement from all users. Each stakeholder will require dashboards and stakeholder information specific to the proposed outcomes of engagement, improved well-being, improved health outcomes, and improved resource use.	<i>Freedom of Information and Protection of Privacy Act (FOIP)</i> Collection s. 33(c) Use s. 39(1)(a),(c) and as otherwise authorized by FOIP
8a 8b	As disparate data sources are connected, originating data sources will have the capacity to view a CHIRP dashboard and applicable reports. There may be the capacity for storage and capture of additional elements that are made available through the COS. This can only be done through consent of data owner (individual) and custodian (original data source). COS will restrict the ability to save or import data without appropriate consents. Attempts to download or import non-consented data will be flagged through audits and results to user will		Becoming Canada's healthiest community will require involvement from all users. Each stakeholder will require dashboards and stakeholder information specific to the proposed outcomes of engagement, improved well-being, improved health outcomes, and improved resource use.	External data sources are required to manage any personal information and will be required contractually to comply with their legal authority. Prior to connection to the COS, proof of an accepted PIA will be required.

	appear as an encrypted uninterpretable hash.		
9a 9b	<p>As disparate data sources are connected, originating data sources will have the capacity to view a dashboard and applicable reports will be available to the organizations managing other data sources.</p> <p>There may be the capacity for storage and capture of additional elements that are made available through the COS. This can only be done through consent of data owner (individual) and custodian (original data source).</p> <p>COS will restrict the ability to save or import data without appropriate consents. Attempts to download or import non-consented data will be flagged through audits and results to user will appear as an encrypted uninterpretable hash.</p>	Becoming Canada's healthiest community will require involvement from all users. Each stakeholder will require dashboards and stakeholder information specific to the proposed outcomes of engagement, improved well-being, improved health outcomes, and improved resource use.	External data sources are required to manage any personal information and will be required contractually to comply with their legal authority. Prior to connection to the COS, proof of an accepted PIA will be required.
10a 10b	<p>As disparate data sources are connected, originating data sources will have the capacity to view a dashboard and applicable reports will be available to the organizations managing other data sources.</p> <p>There may be the capacity for storage and capture of additional elements that are made available through the COS. This can only be done through consent of data owner (individual) and custodian (original data source).</p> <p>COS will restrict the ability to save or import data without appropriate consents. Attempts to download or import non-consented data will be flagged through audits and results to user will appear as an encrypted uninterpretable hash.</p>	Becoming Canada's healthiest community will require involvement from all users. Each stakeholder will require dashboards and stakeholder information specific to the proposed outcomes of engagement, improved well-being, improved health outcomes, and improved resource use.	External data sources are required to manage any personal information and will be required contractually to comply with their legal authority. Prior to connection to the COS, proof of an accepted PIA will be required.
11a 11b	<p>Individuals will have access to their own dashboards and reports with their connected data. Individuals will have the ability to view identified information about themselves inclusive to the data elements made available through connected systems. A two-part authentication process must be completed for this to occur.</p> <p>Individuals will have the ability to manage sharing and utilization of information. Individuals will also be able to view an audit trail of what, how, where, and when information is being accessed/utilized. Individuals will have the ability to restrict control and access and will be required to select the individual data element(s) to be shared.</p>	Becoming Canada's healthiest community will require involvement from all users. Each stakeholder will require dashboards and stakeholder information specific to the proposed outcomes of engagement, improved well-being, improved health outcomes, and improved resource use.	External data sources are required to manage any personal information and will be required contractually to comply with their legal authority. Prior to connection to the COS, proof of an accepted PIA will be required.

12	<p>A community dashboard will be available to the general public without the need for a login or authentication.</p> <p>Data on the community dashboard will be de-identified and only in aggregated format.</p>	<p>Becoming Canada's healthiest community will require involvement from all users. Each stakeholder will require dashboards and stakeholder information specific to the proposed outcomes of engagement, improved well-being, improved health outcomes, and improved resource use.</p>	N/A
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3. Notice

No health information will be collected, used or disclosed.

MyAirdrie Portal

Whenever personal information is being collected, specifically at the point where residents are registering for a MyAirdrie account, a FOIP collection statement is provided.

FOIP Statement

The information collected on this page is collected under the authority of Section 33(c) of the *Freedom of Information and Protection of Privacy Act* (the "Act") and will be used solely for the purposes of registering for and accessing the services under a MyAirdrie account. It will be treated in accordance with the privacy protection provisions of Part 2 of the Act.

Questions concerning collection of this information can be directed to the FOIP Coordinator for the City of Airdrie at 400 Main Street SE, Airdrie, Alberta, T4B 3C3 or (403) 948-8816.

With respect to the Smart Cities Challenge and the COS, the appropriate FOIP statement would be included on the page where a user would add the service to their dashboard. Further, when users choose the COS option within MyAirdrie, a pop up statement will appear that reads:

"You are being redirected to the HealthSmart COS operated by "

Further, the City would include information on its website that would be displayed both under the FOIP and MyAirdrie account sections.

HealthSmart COS, HealthSmart App

Notice about the COS, functions, purpose and risks will be displayed prominently on system login screens and at any public kiosks. No data will be collected by the COS; however, the notices will serve to establish transparency and accountability to users.

Should any surveys or stakeholder specific information need to be collected, this will be done through a separate platform and not through the COS. The survey platform, upon meeting connection requirements to COS, would become another connected platform. Data will not be collected by the COS.

HealthSmart Plug-ins

Notice requirements would become a component of any ISA.

4. Consent and Expressed Wishes

No health information will be collected, used or disclosed.

a. Consent

MyAirdrie

A user's MyAirdrie site is blank until populated by the user. Each service must be consciously selected to form part of the user's dashboard. During signup for new users, an email is sent to their address provided to allow for account verification.

HealthSmart COS

The COS may connect to other systems which collect health information. Please see HealthSmart Plug-ins below.

HealthSmart App

Access to the COS and authorization to utilize connected services will require digital consent on every sign-on. A standardized notice, providing details as to purpose, functions, and associated risks of COS utilization will be available for review.

Health Smart Plug-ins

Prior to any connections being developed to existing external data source platforms or systems, the said systems must provide proof of due diligence in adhering to local legislation and laws (including proof of an accepted PIA). This requirement will be included in all ISAs. Any information collected by these external data source systems, whether collected directly from a person or from existing source systems is the responsibility of the said system. It is expected that connected organizations ensure clear privacy collection notices exist in any facility where information is collected. A copy of these notices will be stored in the COS and visible to any stakeholder connecting to the platform through the COS.

b. Expressed Wishes

If data is acquired from a source system that has the ability to filter based on expressed wishes, this information is filtered out at the source before it is displayed through the COS.

5. Data Matching

Data matching will be required to support planning, quality improvement, evaluation throughout the continuum of becoming Canada's healthiest community. The purpose of linking data sets is to provide more comprehensive health status reporting. Data used for

data matching is acquired through connections to source systems. Data dictionaries exist for the majority of the data sets to minimize unintended inferences.

Algorithms providing mapping, rules, and assumptions for data matching will be stored in the COS, however, no data will be stored. Data matching will only occur after secure user authentication and within an encrypted session. All results will be immediately removed after the secure user session has been terminated.

Data matching will occur for the following purposes:

- Data matching using information authorized for use and outlined in an ISA with the originating data source manager;
- Data matching using information authorized for use by the individual or organization stakeholder; or
- Data matching combining information for research purposes (a Research Agreement would be required prior to any data matching or disclosure).

A data matching framework will be developed, based on methodologies and principles of leading health organizations (Alberta Health Services, Alberta Health, etc.). Any reports or dashboards will provide full transparency as the origins of information and assumptions used for matching data. Users will have the ability to provide or remove consent to utilize identified data sources. Matching will only be able to occur if authorized by the user.

Data will be matched through the use of one/multiple user authentication protocols, including OpenID Connect, OAuth 2.0, and SAML.

6. Contracts and Agreements

a. Vendor

Contracts with vendors to develop the HealthSmart COS, App and Master API will be entered into with the City after completing a municipal procurement process. While every contract has varying confidentiality clauses, the standard clause used by the City is:

Freedom of Information and Protection of Privacy

1.0 Parties and FOIP

- 1.01 Both the City and Consultant, by virtue of this Agreement, are subject to the Freedom of Information and Protection of Privacy Act ("FOIP") as well as any other related regulation requirements governing the management of personal information. Accordingly, both parties have an obligation to protect the privacy of individuals to whom the information is related.

2.0 Consultant's Obligations

- 2.01 Any information collected or generated by the Consultant in the course of the performance of this Agreement is subject to FOIP and any other related regulation requirements. The Consultant shall protect the confidentiality and privacy of any individual's personal information accessible to the Consultant or collected by the Consultant pursuant to this Agreement, from unauthorized access or disclosure.
- 2.02 For the records and information obtained or in the possession of the Consultant in connection with or pursuant to this Agreement, and which are in the custody or control of the City, the Consultant must conduct itself to a standard consistent with FOIP when providing the Services or carrying out the duties or other obligations of the Consultant under this Agreement.

- 2.03 If the Consultant receives a request for access to information under FOIP for records in the custody of the Consultant as a result of this Agreement but under the control of the City, the Consultant must:
 - a) ask the requester to make the request to the City within forty-eight (48) hours;
 - b) advise the City of the request made to the Consultant and forward any copy of the request to the City within twenty-four (24) hours; and
 - c) not disclose the information in the records unless otherwise directed by the City.
- 2.04 Notwithstanding the termination or expiry of this Agreement, the Consultant acknowledges that information and records compiled or created under this Agreement which are in the custody of the Consultant remain subject to FOIP. This means that if a request is received by the City for any of these records, the Consultant shall forward the information and records, at the Consultant's expense, to the City within seventy-two (72) hours of official notification by the City.
- 2.05 As applicable for City records and information under its care, the Consultant shall bear the burden and associated costs of records management practices required under FOIP.
- 2.06 The Consultant shall retain all information and records received or compiled by the Consultant in accordance with this Agreement for a period of six (6) months from the date of termination of this Agreement, after which the information and records must be transferred to the possession of the City.
- 3.0 City's Obligations**
- 3.01 The City will keep confidential information in all documents submitted by the Consultant and accepted in this Agreement (including this Agreement itself), **excluding** information which FOIP requires must be disclosed. FOIP includes provisions which allow the disclosure of business information where such disclosure would not be harmful to the Consultant's business interests or where the disclosure of personal information is not deemed an unreasonable invasion of personal privacy as defined within FOIP.
- 3.02 If the City receives a request for information under FOIP that includes information supplied by the Consultant, the City will give the Consultant notice of such request and will inform the Consultant of the information in the documents the City plans to release, which may affect the interests of the Consultant. The Consultant must respond to the City's notice in accordance with FOIP. While the City will take the Consultant's comments under consideration, the City is under no obligation to act upon the views of the Consultant. Failing receipt of a response from the Consultant, the City will proceed to process the request for information in accordance with FOIP.
- 3.03 If the City's response to a request under FOIP is appealed to the Office of the Information and Privacy Commissioner, the Consultant shall have the burden of proof as to any exceptions from disclosure, as defined under FOIP that the Consultant believes are applicable. The Consultant shall be responsible for all costs related to the appeal. The City will refrain from the release of the contested information until the completion of the appeal period.

Contracts will be modified to ensure the requirements of the applicable privacy legislation are met.

b. Partnership Agreements

The City and the AAHC will enter into a formalized partnership agreement to ensure the completion and success of the Smart Cities Challenge. Each organization brings a unique set of skills, expertise and knowledge to the table. As the City is not currently in the health or health care business, the expertise and leadership of the AAHC in this grass roots initiative is invaluable. The agreement will outline the shared goals and expectations of the parties. A collaborative decision-making model will be used. Provision will be made for decisions that cannot be made collaboratively along with an escalating alternative dispute

resolution process. As the grant recipient, the City will assume fiscal responsibility for the Smart Cities Challenge.

Although work has begun on a formalized partnership agreement, it will not be completed until such time as the Smart Cities Challenge winners have been announced.

c. Information Sharing Agreements

As outlined in Section A, Paragraph 4, and other places within this document, Information Sharing Agreements (ISAs) will be developed and used to clarify the responsibilities of the individual parties whenever an external data source is connected to the COS. In all cases, the external data source will be responsible contractually for the collection, use and disclosure of personal information in accordance with their privacy legal authority. Proof of an accepted PIA from the OIPC will be required.

d. Research Agreements

No health information will be stored in the COS; however, the COS will provide a medium to allow for access to health information stored in an external data source.

Research involving information connected through the COS shall be done in compliance with Alberta's privacy legislation. The *Health Information Act* and the *Freedom of Information and Protection of Privacy Act* require a research agreement to be in place before disclosing information for research.

Prior to receipt of research ethics approval, consent of connected external data sources affected by the research will be required. Depending on the nature of the data elements which will be collected for the research study, additional steps in addition to source consent may be required.

Before disclosing information to a researcher through the COS, the external data source will work with the COS Administration team to ensure that all operational and legal requirements are met, including a fully executed research agreement.

7. Use of Personal Information Outside of Alberta

MyAirdrie Portal

A Cloud Computing Standard has been endorsed under the City's Corporate Information Governance Framework. Any system housing personal information in a cloud must be hosted in Canada, including any backup servers. All information must be encrypted while in transit. A copy of the Standard is attached as a part of the Corporate Information Governance Framework.

HealthSmart COS, HealthSmart App

All information transmitted through the COS will be done through secure encryption within Canada. As no information is stored within the COS, the COS does not maintain any responsibility for how other connected systems use and transmit information. The COS only acts as a medium for data exchange.

HealthSmart Plug-ins

As mentioned above, external data source providers will be contractually responsible to ensure their privacy legislation is complied with.

Section D – Project Privacy and Security Risk Mitigation

1. Access Controls

MyAirdrie Portal

The user would have access and be able to change their own personal information. The access of City staff is as follows:

Position and Job Title	User Role	Number of Staff in this Role	Type of Access (read, write, edit)	Description on information this user can access (include examples)
Database Administrator	Database maintenance and administration	2	All	Personal email plus any optional information provided by the user (first and last name, phone number)
Web Developers	Configuration for integration with the COS	2	All	Personal email plus any optional information provided by the user (first and last name, phone number) Access will be temporary and restricted to network or database information required to design and implement the integration. A formal process is required to attain and delete user access.

HealthSmart COS, HealthSmart App

No personal or health information is contained within the COS.

Access controls will be built on standard security protocols, providing support for OpenID Connect, OAuth 2.0, and SAML. Regular system utilization audits will be facilitated through an automated system access and usage log. Predefined rules will be built-in to automatically flag data breaches and/or inappropriate access, and the appropriate parties (individual, organization, authority, etc.) will be notified. The required privacy legislation will be complied with.

Individuals and organizations, as users, will be encouraged to Own their Own Health through information. Users will be able to manage their own accounts, including the ability to view their history of use and connected systems that have been authorized for the single-sign on. The user role grants access to connected data sources and limits access to what data sources, elements, and functions can be performed by the COS.

COS Administrators will have delegated duties to ensure that all users with access to the COS have access to COS security and privacy. Upon first use of COS, users will need to complete an online training and informational session about the COS. In addition, managed COS discussion boards and education libraries will be available to provide continuous learning and development opportunities.

HealthSmart Plug-ins

As mentioned above, external data source providers will be contractually responsible to ensure their privacy legislation is complied with.

2. Privacy Risk Assessment and Mitigation Plans

1. Describe the specific privacy risks you have identified for this project and how you plan to mitigate them.

Risk	Description	Mitigation Strategy	Policy Reference
Unauthorized use of personal information by internal or authorized parties or unauthorized parties	<ul style="list-style-type: none"> • Personal information could be accessed by an authorized user without a need-to-know or by an unauthorized user. • Authorized users may use sensitive information for other purposes than those for which the information was collected. 	<ul style="list-style-type: none"> • Ensure information is only accessible to those employees who need to know. Leverage IT and physical security protocols to protect personal information. • Unauthorized use by internal parties will result in disciplinary action (up to and including termination). • Ensure any access by authorized external parties is protected under contract. • Unauthorized use by external authorized parties may result in contract termination and any remedies available under the contract. 	<ul style="list-style-type: none"> • Code of Ethics (s. Misuse of Confidential Information and Breach of the Code of Ethics) • Performance Outcomes Guideline (s. Corrective Action) • IGM Policy • Information Security Classification (s. Confidential) and Handling Process (s. Confidential) • Computer Use Policy (currently under review) (s. 1.1.2, 1.3, 5(a), (b), (n), (t), 6, 8) • Privacy Breach Management Process
Unauthorized collection, use, or disclosure of personal information by external parties	<ul style="list-style-type: none"> • External parties such as consultants and contractors may unlawfully collect sensitive information or use sensitive information for purposes for which it was not intended. They 	<ul style="list-style-type: none"> • Conduct periodic system penetration tests. • Unauthorized use by external authorized parties will result in contract termination and any remedies available under the contract. 	<ul style="list-style-type: none"> • Formalized contract

	may also intentionally or intentionally disclose sensitive information to unauthorized individuals.		
Loss of integrity of personal information	<ul style="list-style-type: none"> Personal information is no longer accurate and cannot be relied upon. Customer provides updated information to one department that does not get shared with other departments. 	<ul style="list-style-type: none"> City staff take every opportunity to verify personal information while conducting day-to-day operations. Explore the potential of having taxpayers update personal information annually with tax notices. 	<ul style="list-style-type: none"> IGM Policy Information Security Classification (s. Confidential) and Handling Process (s. Confidential) Computer Use Policy (s. 1.1.2, 1.3, 5(a), (b), (n), (t), 6, 8)
Loss, destruction, or loss of use of personal information	<ul style="list-style-type: none"> Information may be accidentally lost or corrupted due to human error or by malicious codes such as viruses. Malicious codes or human factors may cause information to be unavailable to authorized users when and where needed. 	<ul style="list-style-type: none"> Only authorized users have access to personal information. Education/training on the importance of managing personal information appropriately. Adherence to Information Security Classification Standard and Handling Process. 	<ul style="list-style-type: none"> IGM Policy Computer Use Policy (s. 1.1.2, 1.3, 5(a), (b), (n), (t), 6, 8)
Contractor or business partner collects, uses, or discloses personal information in contravention of FOIP or City policies	<ul style="list-style-type: none"> Third party acts without permission from the City. Third party acts in a way not sanctioned by the City. 	<ul style="list-style-type: none"> Ensure that any parties that information is shared with are authorized. 	<ul style="list-style-type: none"> Formalized contract

HealthSmart COS, App, Plug-ins

It is important to note that the COS has not yet been developed and, as a result, has not yet been through a security review. In preparation for development, we have outlined potential privacy and security risks in the table below. No health or personal information will be stored or accessed by the COS.

Risk	Description	Mitigation Strategy	Policy Reference
Unauthorized use of personal information by internal or authorized parties or unauthorized parties	<ul style="list-style-type: none"> Personal information could be accessed by an authorized user without a need-to-know or by an 	<ul style="list-style-type: none"> All COS Users are assigned a unique Userid. All COS users are subject to COS standards. These may include: <ul style="list-style-type: none"> Code of Conduct Information Access and 	<ul style="list-style-type: none"> Policies are planned for development, which may include: <ul style="list-style-type: none"> Code of Conduct

	<ul style="list-style-type: none"> • unauthorized user. • Authorized users may use sensitive information for other purposes than those for which the information was collected. 	<p>Acceptable Use Policies</p> <ul style="list-style-type: none"> ○ Confidentiality Statement ○ COS User Agreement. • All COS users complete annual continuing education modules that include information privacy and it security awareness. • Access to authorized users within the COS is based on the need-to-know principle (authorized users will have limited access to data according to their role). • Logging and auditing are implemented within the production environment of the COS and users are advised their activity is audited through the User Agreement. • Breaches are reported and investigated according to City Policies. • An Information Security Classification Standard and handling process have been developed by the City. This will be applied to each data element in all data assets connected through the COS. This will enable more efficient auditing as well as assist in classifying information products appropriately. 	<ul style="list-style-type: none"> ○ COS User ○ COS Audit Framework ○ User Account Standard ○ COS Information Access and Acceptable Use Policies ○ COS Confidentiality Statement • Privacy Breach Management Process • Information Security Classification Standard and Handling Process
Unauthorized collection, use, or disclosure of personal information by external parties	<ul style="list-style-type: none"> • External parties such as consultants and contractors may unlawfully collect personal information or use personal information for purposes for which it was not intended. They may also intentionally or unintentionally disclose sensitive information to unauthorized individuals 	<ul style="list-style-type: none"> • External parties/consultants are subject to COS standards and agreements These may include: <ul style="list-style-type: none"> ○ COS User Agreement ○ COS Data Manager Agreement ○ IT Access Request Form. • Access to authorized users within the COS is based on the need-to-know principle (authorized users will have limited access to data according to their role). • A quarterly review of individuals who have accessed the COS will be validated against the list of authorized COS users by the COS Administration. • ISAs have been established to limit use and disclosure of COS data connections by external users. • Users are provided with information that an approved 	<ul style="list-style-type: none"> • Policies are planned for development, which may include: <ul style="list-style-type: none"> ○ COS User Agreement ○ COS Data Manager Agreement ○ IT Access Request Form

		external data source is under an agreement as well as specifics on any limitations for use and/or disclosure within the agreement.	
Loss of integrity of personal information	<ul style="list-style-type: none"> Personal information is no longer accurate and cannot be relied upon 	<ul style="list-style-type: none"> Accuracy of data will be addressed in detailed ISAs, which may result in termination of external data source connections. 	<ul style="list-style-type: none"> Formalized contract
Loss, destruction, or loss of use of personal information	<ul style="list-style-type: none"> Information may be accidentally lost or corrupted due to human error or by malicious codes such as viruses. Malicious codes or human factors may cause information to be unavailable to authorized users when and where needed. 	<ul style="list-style-type: none"> Use of data and services will all require detailed ISAs. Only authorized system administrators control access rights to the COS. As the COS application is managed by the joint governance structure of the City and the AAHC, the COS follows the standard City backup/archival policies and City Antivirus implementation. In the event of accidental loss of data, the administrative data (mapping/algorithms/configurations, etc.) can be re-created/recovered. The core COS environment is read only for anyone except system administrators. 	<ul style="list-style-type: none"> Policies are planned for development, which may include: <ul style="list-style-type: none"> Access to Information (physical electronic, remote) Information Security and Privacy Safeguards Monitoring and Auditing of IT Resources COS Operational Level Agreement
Contractor or business partner collects, uses, or discloses personal information in contravention of legal authority	<ul style="list-style-type: none"> Third party acts without permission. 	<ul style="list-style-type: none"> Authentication protocols require both authorized user and authorization from external data source. Requirements for PIAs and compliance with privacy legislation is enforced. 	<ul style="list-style-type: none"> ISAs

3. **Monitoring**

MyAirdrie Portal

User level actions are logged with respect to successful and unsuccessful attempts. No notifications are sent to administrators. Notifications are sent whenever invalid attempts to access or change data occur. Logs are only reviewed upon request.

HealthSmart COS, App, Plug-ins

Security controls will be reviewed as a part of the COS annual review of the PIA.

a. Repository Logging Capability

User and system activities are defined as:

- User and system activities: All successful accesses and operations performed by an authorized user (e.g., logging onto the COS accessing and querying data) are recorded (logged) and can be monitored. It includes both appropriate and inappropriate activity.
- User and system activity exceptions: All attempted accesses and operations performed by an authorized user that occur outside the expected activity (e.g., unsuccessful login, unsuccessful access).
 - Logging and auditing of the COS user activity is logged and monitored in accordance with a, to be developed, COS Audit Framework.
 - Activities logged include:
 - Successful and unsuccessful logons;
 - Inactive Users;
 - Registration Patterns;
 - Network account and DB account mismatch; and
 - COS Usage (Top 10 and usage by business).

b. Audit Process

The COS will have regular audits established to monitor user activity. Audits will be conducted on a scheduled basis and may include.

Proactive – sampling the audit logs to look for possible inappropriate use or activity:

- User Sessions – Monthly;
- Granting Privileges – Monthly;
- Use of data sources containing potentially personally identifiable data (Fine Grained Auditing) – Monthly; and
- User Access – Quarterly (random); Bi-annual (full).

Reactive – reviewing specific audit logs when unusual activity is suspected:

- The COS Data Sharing Access and Audit will be responsible for completing and reporting any findings of these audits to the established information governance structure.
- The User Session Audit will be a monthly audit that potentially identifies unauthorized access through the potential sharing of passwords where network user name is different from login, user is logged on to more than one location at the same time, and where users are logged on outside the expected usage hours. All records will be grouped network user name by COS user name and date.
- The Grant Audit will be a monthly exception checking audit to identify potential unauthorized access through granting privileges where tables or views have been granted access or where access to tables/views have been granted.
- The Use of Data Sources Containing Potentially Personally Identifiable Data Audit will be a monthly audit of randomly selected users. User queries will be audited to identify

inappropriate use including the use of selective criteria (i.e., specific: unique identifiers, locations, dates, etc.) that would not be typical uses.

- The User Access Audit will be a quarterly audit that is a validation of authorized access.

In addition to proactive audits, where unusual activity is suspected, the Fine Grained Auditing logs capture all queries where identifiable data has been selected. The logs of specific users would be reviewed in detail where there is any question of unusual activity through any of the proactive audits.

The COS is envisioned to have administrative centric dashboards to enable easy viewing of user activity for monitoring. Patterns of inappropriate activity can be easily spotted during the monthly review, enabling timely remediation and investigation.

4. **PIA Compliance**

The PIA will be reviewed frequently during the five-year implementation phase. Every time a new component or external data source is brought on, the PIA will be reviewed to ensure it is accurate and relevant. Post implementation, the PIA will be reviewed for accuracy and relevancy as new external data sources are engaged. At a minimum, the PIA will be diarized to be reviewed on an annual basis.

Should significant differences exist between the COS connections, functions, and requirements and what is described in the existing PIA, consultation will occur on whether an amended PIA will need to be prepared for submission to the OIPC. Significant differences consist of one or more of the following:

- multiple (greater than three) amendments to the PIA exist;
- changes to the collection, use or disclosure of health or personal information;
- changes to user access to health or personal information; or
- changes to the flow of health or personal information.

Amendments are required whenever changes are made to the COS that are not described in the PIA. Changes to the COS that may require an amendment consist of one or more of the following:

- changes to the collection, use or disclosure of health or personal information;
- changes to user access to the health or personal information; or
- changes to the flow of health or personal information.

E. Policy and Procedures Attachments

Topic	Policy Description	Attachment Title(s)	Page Reference
Privacy Accountability	This is a broad policy that enables privacy roles and accountability within your organization. Sometimes called a privacy charter, this policy does not provide detailed work instructions, but rather sets out responsibilities and	No formal policy has been created. Bylaw No. B-31/1999 establishes the City Clerk as FOIP Head. The City follows the FOIP	37

	<p>commitments in relation to privacy.</p> <p>This policy should include:</p> <ul style="list-style-type: none"> • Where privacy fits into your organizational structure • Who is responsible for privacy, including who is responsible for responding to privacy complaints • Who is responsible for information security • Commitment to protect confidentiality and to collect, use and disclose personal information in a limited manner • Commitment to maintain accuracy of personal information • Commitment to provide privacy training and awareness to employees • Commitment to maintain technical and administrative safeguards to protect personal information • Right of access to personal information and right to request corrections • Schedule for periodic review of privacy policies 	<p>Act</p> <p>Structure outlined in Section B(1) above.</p>	8
Access to Personal Information	<p>Your process and timeframes for responding to formal requests from individuals for access to their own personal information. Include references to appropriate fee schedules or other policies for charging fees to process access requests. If you require that individuals fill out a form to make access requests, include it here. You should also consider a process for responding to informal requests or making routine disclosures.</p>	<p>FOIP Act FOIP Access Form Bylaw No. B-31/1999</p> <p>No fee is charged for access to a person's personal information as outlined in the Act.</p> <p>Wherever possible, access requests are managed in a timely manner outside the formal FOIP process.</p>	39 37
Correction Requests	<p>Your process and timeframes for responding to individuals who ask you to correct their personal information. Include your process for responding to these requests and describe how you inform individuals of your decisions to grant or refuse corrections.</p>	<p>FOIP Act</p> <p>Requests are to be made in writing. Acknowledgement is provided to the requester upon completion. Although no specific timelines are identified, City staff respond to requests for correction in the moment unless there are extenuating circumstances.</p>	N/A

TRAINING, AWARENESS & SANCTIONS	Your privacy training program for employees and others that will have access to personal information in your custody. This policy should include sanctions for not complying with your privacy policies.	Service Alberta Online Public Body Training is mandatory for all employees. All staff members in Legislative Services and key staff members in Information Technology take the 3-day privacy management course through Service Alberta. Breaches or non-compliance are managed under the City's performance management program which spans the spectrum from a verbal discussion to dismissal. The City's Computer Use Policy (currently under review) outlines how systems are to be used and accessed and prohibits unauthorized access to personal information.	41 44
	Collection of Personal Information and Notice	Acceptable reasons for collecting personal information, which should include statutory authority under the FOIP or other relevant legislation. Include examples or descriptions of how you notify individuals about why you are collecting their information.	Section 33(c) of FOIP Act and other bylaws as appropriate. FOIP statement included on forms that collect personal information.
	Use of personal Information	Acceptable uses of personal information in your organization	FOIP Act. All use is based on need to know and determined in conjunction with Legislative Services.
	Disclosure of Personal Information	Reasons why your organization discloses personal information to other organizations or persons. This policy should cover: <ul style="list-style-type: none">- Disclosure without consent- Disclosure with consent- Disclosure of non-identifying information	FOIP Act

	<ul style="list-style-type: none"> - Keeping a record of disclosure - Disclosure notice 		
Research	How your organization handles research, requests from researchers including approval process for research requests and agreements with researchers	Release in statistical format only – each request reviewed on a case-by-case basis. To date, the City has not received a research request.	N/A
Third Parties	How you ensure that third parties, which include contractors and information managers, protect your organization's personal information. This policy should include privacy requirements for third-parties, review of third-party compliance, requirements for out-of-province information managers.	<p>Third parties enter into a contract, especially if personal information is involved.</p> <p>Sample wording is included in Section 6(a) above.</p> <p>No compliance review unless triggered by an incident/complaint which would be investigated.</p>	19
PIAs	Circumstances that trigger your organization to conduct a privacy impact assessment. This policy should describe who is responsible for conducting PIAs and how often they are reviewed.	<p>Software implementation and offsite storage of information. The City has a Business Systems Assessment ("BSA") process that requires identification and management of personal information at various stages in the software acquisition process.</p> <p>A PIA is triggered by any business process that contains personal information. The PIA is completed by Legislatives Services, IT, Information Governance and the requesting business unit.</p> <p>PIA's are reviewed when changes to business systems occur.</p>	92
Records Retention and Disposition	How long you keep records containing personal information and what you do with them once they are no longer needed. Include references to any statutory or professional records retention and disposition schedules	Retention of records containing personal information varies and is governed by the Information Governance and Management Policy,	58

	you follow. This policy should also include a process to securely dispose of personal information when no longer needed.	Records Retention and Disposition Bylaw No. B-11/2017, Retention Schedule and Retention Schedule Change Process. The City is currently implementing an EDRMS with a records retention bolt on, which will provide the City with the ability to manage its electronic records. The City has adopted an Information Governance and Management Strategy whereby the City will be digital by 2022.	112 117 118
Information Classification	Information should be protected at a level commensurate with its sensitivity and the risks it faces. Describe how you classify personal information in order to determine the most appropriate level of security.	Information is classified according to the Information Security Classification Standard and Handling Process.	62 65
Risk Assessment	New risks to the confidentiality, integrity and availability of personal information may arise over time as technology and business processes evolve. This is your policy for conducting periodic risk assessments to assess the effectiveness of your privacy policies.	BSAs are required as business systems evolve over time. The BSA is a risk assessment tool. BSAs are approved at the IGM Steering Committee ("IGMSC"). It is expected the Corporate Information Governance Framework will be complied with. In the event a BSA does not comply with the Corporate Information Governance Framework and risks cannot be mitigated to the satisfaction of the IGMSC, a business unit may appeal the decision of the IGMSC to the Senior Leadership Team. Formal review processes for evolving business processes are being investigated.	92
Physical Security of Data and Equipment	The physical and administrative measures you take to secure personal	Through training, staff are advised that personal	

	<p>information in paper and electronic form. This policy should describe how you secure your workspaces, computers, fax machines, copiers, and other office equipment. Pay special attention to securing mobile equipment, such as notebook computers and mobile data storage devices.</p>	<p>information is to be locked up. Filing cabinets and storage receptacles are provided upon request.</p> <p>The Information Security Classification Standard addresses appropriate security based on classification.</p> <p>The Computer Use Policy deals with technology related devices.</p>	<p>62</p> <p>65</p> <p>44</p>
<p>Networking and Communications Security</p>	<p>Measures you take to secure your network and communications infrastructure. This could include such controls as malware (anti-virus) protection, firewalls, intrusion detection systems and encryption.</p>	<p>Network Based</p> <ul style="list-style-type: none"> • Inbound and outbound Fortinet firewall that has identity awareness. This allows IT to verify that the user(s) have policies applied based on business requirements for access internal and externally. • Application awareness and control of inbound and outbound granularity. When policies are set, control of what application is allowed to traverse internal/external based on business requirements. • Design of the network infrastructure to segment networks to control data flow between networks. This allows IT to control data flow of systems to only allow access to systems that they truly require. The inherited design allows for better control and logging of the communications. • Intrusion prevention system to detect and prevent inbound and outbound communications that are known to contain dangerous 	<p>N/A</p>

		<p>communications.</p> <ul style="list-style-type: none"> • Active Directory users. Single sign on for most new applications that have been implemented. <p>Desktop Based</p> <ul style="list-style-type: none"> • Desktop anti-virus and host based intrusion detection. • Application control based on specified policies specified at the desktop level. Applications such as download managers, encryption software, email clients, file sharing applications and so on can be controlled from leaving the desktop level. • Control and detection of Malware and malicious and suspicious behavior that may originate from desktop. • Data Control of documents and or data that are marked as being or other definable content or file information. Data can be controlled to prevent leakage of data or to monitor and report of the identified leakage. <p>General</p> <ul style="list-style-type: none"> • VDI (Virtual Desktop) allows interaction with the desktop and data. Data doesn't leave the network environment preventing data loss. • All new mobile device technologies allow for full device encryption. • Entry into the network requires that a two factor authentication be passed. (Something you know = username and password. Something 	
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		<p>you have = cell phone device.)</p> <ul style="list-style-type: none"> • Email communication between handheld and mail server are encrypted during communications. • Using secure https encryption between clients and server applications. • All data centres/wiring closets physically secured with key pass and code. Some locations have video surveillance. 	
Access Controls	Identifying and verifying users of your personal information, deciding what information they need to use, and making changes when users change positions or leave. Identification and verification includes assigning usernames, passwords and tokens.	<p>New employees are assigned access levels that are determined by their position and confirmed by their Team Leader through a New User Request Form submitted to IT. Any time an employee changes roles or leaves the organization, a Move User or Remove User Request form is completed and submitted to IT. IT reviews the information prior to providing or removing access. This process is reviewed by the City's external auditors on an annual basis.</p> <p>Database Access Forms are used for any time an employee needs access to a database containing personal information. The form is completed by the requestor, signed off by the Team Leader and forwarded to Legislative Services, who confirm that the requestor's FOIP training is up to date (no more than 3 years old). The FOIP Head or Team Lead signs off on the form to grant permission for</p>	<p>120</p> <p>121</p> <p>122</p> <p>123</p>

		access. The IT Service Desk tracks all tickets, including the forms above. All are auditable.	
Monitoring and Audit	How you ensure that users of the personal information comply with policies. This policy should describe what you monitor to ensure compliance, frequency of review and triggers for a formal audit/review or activation of your incident response plan.	No formal monitoring or audit processes are in place. Compliance is done on an informal basis and triggered by complaint or observation.	N/A
Incident Response	<p>Your plan to deal with contraventions of legislation and your own privacy policies. Plan should:</p> <p>Define what constitutes a privacy incident (or levels of privacy incidents)</p> <p>Identify members of an incident response team</p> <p>Describe the process to bring incidents to attention of senior management and engage them in the process</p> <p>Process to determine whether to notify individuals affected by the incident</p> <p>Process to determine whether to notify to OIPC</p>	<p>The City does not have a formal plan in place.</p> <p>Informally, FOIP staff conduct an internal investigation and depending on the nature of the breach, corrective action would be undertaken with the responsible staff member. Depending on the nature of the breach, senior management and the OIPC may be advised.</p> <p>The City follows its Breach Management Process.</p>	87
Business Continuity	How you ensure personal information is available when needed. This includes your plans to back-up data and your plans for disaster recovery, based on business need	Snapshots of systems are regularly captured and replicated to another data centre in a separate site. Backup tapes are also stored in a locked vault off site.	N/A
Change Control	Ensuring that changes to systems do not adversely affect the confidentiality, integrity or availability of personal information.	<p>A change to a system would trigger a new PIA.</p> <p>There is a formal Change Management Advisory Board within IT where all changes to systems are thoroughly reviewed prior to implementation</p>	N/A
Project Specific Policies	Include any project-specific policies	N/A	N/A

BYLAW NO. 31/99
OF THE CITY OF AIRDRIE
IN THE PROVINCE OF ALBERTA

Being a Freedom of Information and Protection of Privacy bylaw.

WHEREAS, pursuant to Section 89 of the *Freedom of Information and Protection of Privacy Act*, S.A. 1994, c. F-18.5, the City of Airdrie must designate a person or group of persons as the head of the municipality for the purposes of the Act;

AND WHEREAS, pursuant to Sections 87 and 89 of the *Freedom of Information and Protection of Privacy Act*, the City of Airdrie may set any fees payable to the municipality for services under the Act and Regulations;

NOW THEREFORE the Municipal Council of the City of Airdrie in Council duly assembled enacts as follows that:

PART I – PURPOSE, DEFINITIONS AND INTERPRETATION

1. The purpose of this Bylaw is to establish the administrative structure of the City of Airdrie in relation to the *Freedom of Information and Protection of Privacy Act* and to set fees thereunder.

2. In this Bylaw, unless the context otherwise requires:

“**Act**” means the *Freedom of Information and Protection of Privacy Act*, S.A. 1994, C. F-18.5;

“**Applicant**” means a person who makes a request for access to a record under Section 7(1) of the Act;

“**Municipality**” means the City of Airdrie and includes any board, committee, commission, panel, agency or corporation that is created or owned by the City of Airdrie and all the members or officers that are appointed or chosen by the City of Airdrie but does not include the Airdrie Municipal Library Board and Airdrie Community Lottery Board.

“**City Clerk**” means the person employed as the City Clerk of the City of Airdrie and includes any person who holds the position of City Clerk in an Acting capacity;

“**Province**” means the Province of Alberta.

3. The headings in this Bylaw are for reference purposes only.

PART II – DESIGNATED HEAD

4. For the purpose of the Act, the City Clerk is designated as the Head of the municipality.

PART III – FEES

5. Where an Applicant is required to pay a fee for services, the fee payable is in accordance with the Freedom of Information and Protection of Privacy Regulation, AR 200/95, as amended from time to time or any successor Regulation that sets fees for requests for information from the Province.

PART IV – GENERAL

6. This Bylaw comes into effect on October 1, 1999.

READ a first time this 20th day of September, 1999.

READ a second time this 20th day of September, 1999.

READ a third time this 20th day of September, 1999.

EXECUTED this 20 day of September, 1999.


MAYOR


CITY CLERK



Request to Access Information

Personal information on this form is collected under Alberta's *Freedom of Information and Protection of Privacy Act* and will be used to respond to your request. See instructions for completing this form.

About you

Title (optional)	Last Name	First Name		
Name of Company or Organization (if applicable)				
Mailing Address	Street	City/Town/Village	Province	Postal Code
Telephone Number (daytime) ()	Telephone Number (evening) ()	Fax Number ()		
E-mail Address				

About your request

1. What kind of information do you want to access?

- ☐ General information (An initial fee of \$25 is required – see instructions for explanation of fees.)
- ☐ Your own personal information (No initial fee is required for personal information.)

2. To which public body are you making your request? (Please fill in the name of the public body that has the records you wish to access. For a complete listing of public bodies, consult the Directory of Public Bodies on the FOIP website at foip.alberta.ca.)

--

3. Do you want to: ☐ receive a copy of the record? OR ☐ examine the record?

About the information you want to access

1. What records do you want to access? Please give as much detail as possible. (If you want access to your own personal information, be sure to give all your previous names. For another person's information, you must attach proof that you can legally act for that person.)

--

2. What is the time period of the records? Please give specific dates. (See instructions for details.)

--

Your signature

Signature	Date
-----------	------

Where to send your request

Send your completed request form, and initial fee if applicable, to the FOIP Coordinator of the public body that has the records you wish to access. For contact information, consult the Directory of Public Bodies on the FOIP website at foip.alberta.ca.

FOR OFFICE USE ONLY	
Date Received	Request Number
	Comments

Request to Access Information

Instructions

You can access many public body records without making a request under the *Freedom of Information and Protection of Privacy Act* (the *FOIP Act*). To determine whether you need to make a request under the Act or if you need help completing the form, contact the FOIP Coordinator of the public body to which you are making the request.

About you

In this part of the form enter:

- your last name, first name and preferred title, if any;
- the name of the company or organization you are representing, if applicable;
- your complete mailing address and daytime and evening telephone numbers so that the public body can contact you about the request;
- a fax number or e-mail address, if any, where correspondence may be sent.

About your request

If you need help to find out what records a public body has, contact the FOIP Coordinator for the public body.

1. What kind of information do you want to access?

Check **general** or **personal** information.

General information is information other than personal information (see below). For example, it would include information about a third party.

Do not include your credit card information in the mail or fax.

- There is an initial fee of \$25.00.
 - For a request to a government department, make the cheque payable to the Government of Alberta.
 - For a request to a public body that is **not** a government department, please consult with the FOIP Coordinator for payment information.
- The public body provides you with an estimated cost before processing begins.
- If the total cost of processing your request is more than \$150, you are asked to pay a 50% deposit.
- The records are provided when the fee is paid in full.

Personal information is your own personal information or the personal information of an individual you are entitled to represent.

- You must provide proof of your identity before records containing your personal information are released to you.
- If you are requesting records for another person, you must provide proof that you have authority to act for that person (e.g. guardianship or trusteeship order, power of attorney).
- There is no initial fee for accessing your own personal information.
- If the cost of photocopying is more than \$10, you will be notified of the fee.

Continuing request: This is a single request that is processed more than once at predetermined time intervals over a period of up to 2 years.

- Contact the FOIP Coordinator of the public body if you are making a continuing request.
- The initial fee is \$50.00.
- You must pay any additional costs as the information becomes available.

2. **To which public body are you making your request?** Enter the name of the public body that you believe has the records that you are requesting.

3. **Do you want to receive a copy of the record OR examine the record?** Check the appropriate box indicating whether you want to receive a copy of the record *or* examine the record.

About the information you want to access

1. What records do you want to access?

- Be as specific as possible in describing the records.
- If you need more space, continue your description on a separate sheet of paper and attach it to this request form.

If requesting your own personal information, give:

- your full name;
- any other names that you have previously used; and
- any identifying number that relates to the records, such as your employee number, case number or other identification number.

If requesting another person's information, give:

- the person's full name;
- any other name that person may have used on the records; and
- any identifying numbers for the person, if you know them.

If you are requesting records for another person, you will have to provide proof that you have authority to act for that person.

2. **What is the time period of the records?** Enter the specific dates or date ranges of the records you want to access. (e.g. if you want records for the period January 1, 2005 to August 31, 2007, enter those dates. If you want records from August 2008 to present, enter "August 2008 to present.")

Your signature

Sign and date the form.

Where to send your request

Send your completed form, and initial fee if applicable, to the FOIP Coordinator of the public body that has the records you wish to access. For contact information, consult the Directory of Public Bodies available on the FOIP website at foip.alberta.ca.

PERFORMANCE OUTCOMES GUIDELINE

OUR COMMITMENT

The City of Airdrie is committed to ensuring that there is a strong match between individuals' personal values and the City's corporate values. Our recruitment and selection guideline and practices guide us in an initial assessment of that match. The first few months of a new hire's employment is another opportunity to assess the match.

Management of performance is an important part of ongoing communication to ensure that employees are aware of the expectations of their role and are on track to meet their annual goals. This may include coaching, support, encouragement and redirection as required.

GUIDELINES

LEARNING COMMITMENT (PROBATION PERIOD)

The purpose of the Learning Commitment is to allow both the employer and the employee time to evaluate the employee's suitability for employment with the City of Airdrie. The learning commitment period is six (6) months from the first day of employment.

It is the responsibility of the immediate team leader and employee to effectively manage the learning commitment process. Communication is critical to the success of this process. Therefore, it is recommended that the team leader and the employee meet monthly during the Learning Commitment period.

At the completion of the Learning Commitment period, an informal review meeting will happen to close out the learning commitment and discuss progress.

Either party may terminate the job arrangement at any time during the Learning Commitment.

PERFORMANCE PLAN (JOB PROFILE, ANNUAL GOALS AND LEARNING PLAN)

The purpose of the Performance Plan is to identify what outcomes (product or result) employees are expected to deliver during their employment. The Performance Plan becomes a specific personal commitment (promise) between the individual and their team leader and co-workers. The goals within this Performance Plan will be tied to the department business plan as well as to the corporate and council strategic priorities.

The benefits of a Performance Plan:

- Role clarity
- Enhanced commitment to outcomes rather than activities
- Create room for personal decision making and personal growth
- Improve coordination towards business goals
- Give employees ownership of results

- Give employees a way to measure growth and progress
- Clarity of expectations and outcomes
- Personal and professional skill development

Team leaders are responsible to ensure that employees have completed and/or updated a Performance Plan each calendar year or within the first 6 months of employment for new hires. Copies of the Job Profile portion of the Performance Plan are to be posted onto MyNet by each employee annually.

INFORMALS/FORMALS

The Informal is used as a tool for one-on-one dialogue between an employee and their team leader. It is the responsibility of both the team leader and team member to schedule monthly informals. At the end of every quarter, documented Quarterly Review comments are to be completed and attached to the annual Formal.

Formal meetings are an opportunity to review/evaluate the past year's performance and accomplishments as set out in the Performance Plan. Generally consensus is reached between the employee and team leader as to the final document to be placed on the employee's personnel file.

It is the responsibility of the team leader to ensure a Formal is conducted annually with each employee. Once the Formal review is completed, it is to be sent to Human Resources along with the current Performance Plan and Quarterly Reviews.

CORRECTIVE ACTION

Relationships begin with a committed partnership on the part of the employee and the team leader to ensure the success of both the employee and the City. When improvement is required, the corrective action process is used to aid learning, provide redirection and help achieve the desired outcomes. Human Resources is consulted in all steps of the process and is present in all steps beyond Step 1.

Communication during this process is to be clear and definitive and the team leader and employee should check to ensure the expectations and behaviors required during each conversation are clearly understood and agreed to.

These steps ensure that Corrective Action is applied consistently and fairly to all City employees. Depending on the seriousness of a situation, any and all steps may be skipped.

STEP 1: Problem Solving Session/Coaching

- The team leader will discuss the behavior or action needing improvement with the employee and clarify expectations. A plan of action and a timeline for improvement will be discussed and agreed to.

If job expectations are still not met, the team leader will document further coaching sessions and will advise the employee accordingly.

If the situation progresses beyond coaching, the team leader will consult with Human Resources prior to proceeding to Step 2.

STEP 2: Written Reminder

Failing improvement, the employee will be issued a Written Reminder clearly defining the expectations. This Written Reminder should include:

- Examples of the inappropriate action/ behavior and its impact
- The expected action, behavior and standards
- Resources required
- Time frames

In addition to these steps, the employee is to be made aware that failure to meet the required changes will lead to further consequences, up to and including dismissal.

The original Written Reminder will be given to the employee and a copy will go to the employee's personnel file in Human Resources.

STEP 3: Decision Making Leave

Where required, the employee may be given a 'Decision Making Leave' with or without pay. This step allows the employee time off to decide whether or not they wish to continue employment with the City. If the employee makes the decision to continue employment with the City, they will be required to provide a written action plan outlining how they will correct the behaviors or actions identified.

STEP 4: Dismissal

If, after a reasonable period of time, the employee has failed to correct the problem, it may be necessary to terminate employment. Approval is required from the City Manager or designate, in consultation with the team leader and Human Resources.

A notice period, payment of wages in-lieu-of-notice, or a combination thereof shall not be paid to the employee if:

- The employee has been employed with the City for less than three (3) months
- The employee is dismissed for "just cause"
- The employee voluntarily terminates his/her employment

Any employee who is absent for three consecutive days without notification or written authorization for a leave will be considered to have forfeited their position with the City unless their immediate team leader is notified prior to the end of the three day period and proper documentation, if required, is supplied.

Administrative Policy Computer Use




Issued: February 27, 2014

Information Technology Department

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City of Airdrie Administrative Policy - Computer Use				

Effective Date: ENTER DATE HERE

Approved By: City Council

Approved On: ENTER DATE HERE

Resolution#: ENTER # HERE

1. General Provision

1.1. Purpose

- 1.1.1. To ensure all End-Users are provided the necessary information to outlining the permissible and non-permissible actions and uses of a computer system.
- 1.1.2. To ensure each End User with access to a computer system understands they are responsible and accountable for the security and integrity of the City of Airdrie's corporate data and systems.
- 1.1.3. To protect the interests and obligations of the City of Airdrie.

1.2. Scope


This policy includes any individual who has or is responsible for a Network login account used on any computer system that has access to the City of Airdrie Network, or stores any non-public City of Airdrie information.

1.3. Other Policies

All City policies and procedures apply to employees' conduct on the Internet, specifically, but not exclusively, relating to: intellectual property, confidentiality, City information dissemination, standards of conduct, misuse of City resources, anti-harassment, Freedom of Information and protection of Privacy Acts (FOIP) and information and data security.


1.4. Employee Liability

Employees are individually liable for damages incurred as a result of violating this policy.

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2. Definitions

- 2.1 **Authorized Employee** – Staff tasked to protect City of Airdrie assets and Computer Systems.
- 2.2 **BYOD (Bring Your Own Device)** – Permitting staff to bring personally owned mobile devices (laptops, tablets, and smart phones) to their workplace, and to use those devices to access privileged City information and applications.
- 2.3 **City** – City of Airdrie.
- 2.4 **Computer Systems** – A City owned system of one or more computers and associated software with common storage. The computer system can be physical or virtual.
- 2.5 **Computer Viruses/Malware** - Malicious computer programs written to damage the program files in a computer, reputation or effect on ecommerce.
- 2.6 **End-User** – Any person operating a computer system.
- 2.7 **Hardware** – The physical electronic device. The Hardware can be owned by the City, End-User or a consultant.
- 2.8 **Material** – Any visual, textual, auditory, file page graphic or other entity.
- 2.9 **Network** – A collection of computers and other Hardware interconnected by communication channels that allow sharing of resources and information.
- 2.10 **Software** – A program installed on a piece of Hardware.
- 2.11 **USB Drive** – A removable external storage device.
- 2.12 **VDI** – Virtual Desktop Infrastructure. A desktop-centric service that hosts user desktop environments on remote servers.

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3. Privacy, Rights and Monitoring

3.1. Privacy

Employees are given access to the computer resources of the City to assist them in the performance of their jobs. Employees that use City-owned computer systems for personal use of any form should not have any expectation of privacy in anything they create, store, send or receive.


3.2. Waiver of Privacy Rights

3.2.1. Employees expressly waive any right of privacy and ownership in anything they create, store, send or receive on a City owned Computer System. Employees consent to allowing Authorized Employees to access and review all Materials the employees create, send, store, or receive on a Computer System. The use of passwords or other security measures does not in any way diminish the City's right to access Materials on its Computer System or protect any privacy rights of employees who create the materials on the computer system.

3.2.2. The City of Airdrie will comply with reasonable requests from law enforcement for logs, diaries, archives, or files on Computer Systems and e-mail activities. The release of information must be in compliance with FOIP legislation.


3.3. Monitoring of Computer Usage

The City has the right and duty to protect the Computer Systems and monitor all computer related activity by employees including, but not limited to, monitoring sites visited by employees on the Internet, search engine lookups, monitoring chat groups or social networking sites, reviewing material downloaded/uploaded by employees to the Internet or cloud-based services and reviewing e-mail sent and received by employees.

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4. Acceptable Computer Uses


- 4.1. The City recognizes the importance and advantages of Computer Systems and associated technologies. The City promotes the use of these technologies by providing resources that enable employees to use and access these technologies. Employees are encouraged to use City Computer Systems and associated technologies to:
- a) Further the City's mission;
 - b) Support goals and objectives of the City;
 - c) Support the provision of high quality customer service;
 - d) Promote partnership and community involvement with the citizens of Airdrie, other government agencies, community organizations and businesses;
 - e) Provide information related to the activities and services offered by the City;
 - f) Support direct job-related purposes;
 - g) Increase productivity;
 - h) Increase professional growth.
 - i) Maintain the integrity of the City.
- 4.2. City computer systems and associated technologies are provided for business purposes.

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5. Unacceptable Computer Uses

Use of City Computer Systems, Networks, and Internet access is a privilege granted by management and may be revoked at any time for inappropriate conduct including, but not limited to:

- a) Using someone else's computer system when they are logged in;
- b) Sharing of logins and passwords;
- c) Consuming computer system resources (drive space, printer paper, etc.) for personal use;
- d) Personal gain;
- e) Sending chain letters, music, videos, animations or joke e-mails;
- f) Engaging in private or personal business activities;
- g) Misrepresenting oneself or the City;
- h) Engaging in unlawful or malicious activities;
- i) Using abusive, profane, threatening, racist, sexist, or otherwise objectionable language in either public or private messages;
- j) Sending or accessing racist, sexist, threatening, retaliatory profane, discriminatory, sexually harassing, offensive, pornographic or otherwise objectionable or illegal Material;
- k) Initiating or participating in cyber-bullying;
- l) Causing congestion, disruption, disablement, alteration, or impairment of City Networks or systems;
- m) Copying and/or transmitting documents in violation of copyrights laws;
- n) Copying and/or transmitting documents or information in violation with Provincial or Federal Freedom of Information and Privacy (FOIP) laws or FOIP legislation;
- o) Downloading and/or installing Software or using web based Software as a service application without the prior approval from IT;
- p) Improperly downloading files that contain viruses, which may compromise City information systems and databases;
- q) Deliberately propagating viruses or other code or files designed to disrupt, disable, impair, or otherwise harm the City's Networks or systems or those of any other individual or entity;
- r) Downloading non-work related or unauthorized Software;
- s) Using recreational games;
- t) Defeating or attempting to defeat security restrictions on City systems and applications;
- u) Sending emails to solicit or sell products or services;
- v) Moving a City-owned workstation without the approval or assistance of IT.
- w) Utilizing the personal hot spot of a City mobile device to circumvent security policies or filters;
- x) Using cloud-based personal Network storage or peer-to-peer services;
- y) Using services that facilitate synchronization of data from a City computer system or mobile device to the cloud;


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6. System Access

Access to the City's Computer Systems, Network, Hardware and Software application systems, is restricted to Authorized Employees of the City and authorized service providers.

6.1. Usernames and Passwords

- 6.1.1. Access to the City's corporate Computer Systems is controlled by usernames and passwords which further control access to specific systems, files and directories. Each End-User will be provided with a username and password, which will allow access to the Network. Each End-User is accountable for all actions performed with their login credentials.
- 6.1.2. All passwords are to be treated as sensitive, confidential City of Airdrie information. All passwords must conform to the guidelines described in the City of Airdrie Password Procedures. (found on MyNet)
- 6.1.3. Individual or personal login names and passwords are not to be shared with anyone, including other City of Airdrie personnel.
- 6.1.4. The City Manager, Directors, Managers, Team Leaders and IT Team Leaders are permitted to request and retain the passwords of employees to gain access to stored data and email if required in the event the employee is absent.
- 6.1.5. Employee passwords shall be changed periodically (every 90 days) to maintain an effective deterrent against unauthorized use.

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7. System Security

7.1. Sites Blocked


Protection of City of Airdrie confidential information is further enforced using an Internet reputation system. This system protects the City Network by preventing low reputation sites or sites that potentially contain threatening content from being accessible. Additional sites can be added at the discretion of Team Leaders or Directors.

7.2. Emails Blocked

The City of Airdrie uses a system that blocks incoming and outgoing spam/malware emails and blocks those that are considered harmful. On occasion, business emails may get blocked. Business emails will be released and business email addresses will be added to the safe list after an investigation to determine the reason they were blocked. Personal emails that are blocked will only be released if they do not contain jokes, use of profanity, obscene, suggestive images or offensive graphical images and are not spam.


7.3. System Protection

Staff is encouraged to request IT assistance with the physical security of the Hardware and protection of Software systems when End-Users are working in the field. The scheduling and level of protection of any City computer Hardware or Software system shall be at the direction of the Team Leader.

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8. Data and Information Security

- 8.1.1. It is the full responsibility of the employee to ensure that information of a sensitive nature or is classified as personal and/or confidential is handled in accordance with appropriate City policies, procedures guidelines or provincial and federal legislation.
- 8.1.2. An End-User shall not access data or information that is of a sensitive nature, or is classified as personal and/or confidential without proper authorization.
- 8.1.3. Data and information containing personal information must be managed appropriately under FOIP legislation and the data must not be removed from corporate systems. If this data must be transported or transmitted, the data shall be encrypted to prevent unauthorized access to the data.
- 8.1.4. In the event data or information containing personal information is lost or leaves the controlled possession of the City of Airdrie, its employees or authorized service providers, the FOIP Coordinator must be advised immediately to determine whether the Privacy Commissioner and affected parties should be notified.


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9. Computer Virus and Malware Protection

- 9.1. The City provides virus and malware protection as part of its framework of defense mechanisms against viruses and other forms of system breaches. The City does this because desktop and Network computers are susceptible to infection by Computer Viruses and Malware that can cause unauthorized system access, system malfunction and loss of data.
- 9.2. If a suspicious activity is detected, or it is known that an employee is deliberately spreading system related viruses and malware, contact a Team Leader and the IT Service Desk immediately.
- 9.3. Disciplinary action including charges shall be taken against anyone caught knowingly spreading Computer Viruses.
- 9.4. Employees shall follow these guidelines to prevent the spread of Computer Viruses:
 - a) Suspected email messages or Internet sites that end-users feel are unsafe should not be accessed and reported to IT Service Desk;
 - b) Do not allow any non-City owned USB Drives to be inserted or used in any City of Airdrie computer without the approval of IT.
 - c) Do not use software obtained from outside sources (i.e. bulletin boards) that are not authorized for City use.
 - d) Downloading or sharing of Software programs from the Internet or any non-City computer is prohibited unless authorized by the IT Team Leaders.
 - e) Do not leave the computer unsecured or unattended for a prolonged period of time.
 - f) USB Drives are scanned real time for Computer Viruses and Malware.

10. Employee Termination

- 10.1. In the event a City of Airdrie employee terminates or is suspended from their employment with the City, their Team Leader or delegate is responsible for notifying IT immediately to ensure the City's computer Hardware, electronic information and Software programs are protected from unauthorized or malicious activity.
- 10.2. Team Leaders are responsible for sending a Remove User request as soon as an employee has been terminated or left the organization.

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11. Software

- 11.1. The IT Team Leaders shall review all Software purchases and maintenance agreements to ensure the needs and interests of the City are protected. (from the technical perspective)
- 11.2. Only purchased and approved Software licensed and owned by the City is to be installed on City computer systems. When unauthorized Software is discovered it will be immediately removed and the End-Users Team Leader will be notified.
- 11.3. IT shall provide Software support and technical assistance for all approved Enterprise Software products.
- 11.4. All Software installations and removals are to be completed by IT.
- 11.5. No employee may create, use, or distribute copies of such Software that are not in compliance with the license agreements for the Software.

12. Remote Access

This City of Airdrie provides the capabilities to access City's Computer Systems from remote locations providing these locations have Internet access. To obtain remote access, employees must contact their Team Leader who will determine if remote access is appropriate. If appropriate, the Team Leader will collaborate with IT and the employee to obtain remote access and associated training.


13. Computer Training

- 13.1. All staff should possess a basic understanding of how to use computer Hardware and have an understanding of basic security practices. Staff should also have some competence using Microsoft Office products.
- 13.2. It is not the responsibility of IT to be proficient and capable of training staff on all desktop software.
- 13.3. It is the responsibility of the departments Team Leaders to determine and fund staff technology training.

14. Mobile Device Use

14.1 Laptops, Tablets and Smartphones

- a) A City owned mobile device is not to be used to transmit or receive information that is out of compliance with the Computer Use Policy.

	PPM - 10	Policy and Procedure Manual		
	PPM-0100-00	Issued: January 7, 2010	Approved:	Page 13
City of Airdrie Administrative Policy - Computer Use				

- b) A City-owned mobile device is not to be used to circumvent established filters or policies within the environment to allow access to or the transmission of City information.
- c) A City-owned mobile device is not to be shared with non-City staff.

14.2 Bring Your Own Device (BYOD)

- a) Devices will require antivirus Software and the latest virus definitions.
- b) Devices will require the latest operating system upgrades, patches and security updates.
- c) Devices will not be permitted to copy City owned information to the device.
- d) Devices will utilize VDI to unify the end users' desktop.

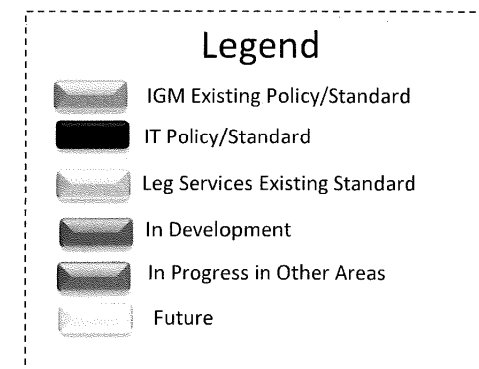
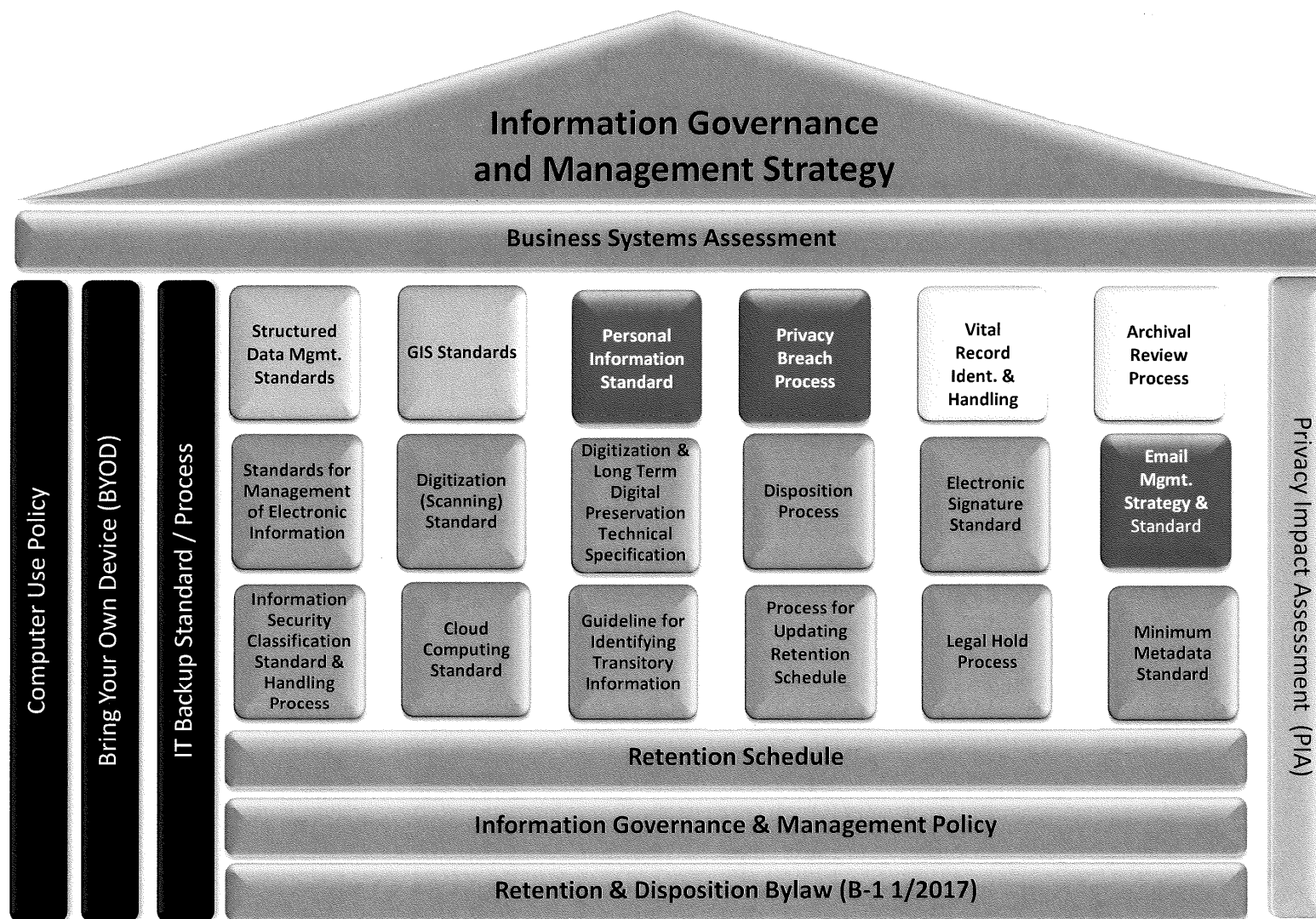
15. Policy Updates

- 15.1. This policy shall be updated on an as needed basis and is subject to change at any time. Team Leaders are responsible to ensure all City employees accessing a City Computer System understand and comply with this policy. City employees are encouraged to contact their Team Leaders or an IT Team Leader regarding questions about this policy.
- 15.2. Team Leaders are responsible for ensuring that any violation of this policy is handled in a fair and consistent manner. Team Leaders shall also act in good faith to ensure this policy is administered fairly and consistently.

16. Respecting the Policy

Any person, subject to this policy, who fails to comply with the provisions as set out within this policy or any amendment thereto, shall be subject to the appropriate disciplinary action in accordance with the City of Airdrie Performance Outcomes Guidelines (this document can be found on MyNet).

Corporate Information Governance Framework



CITY OF AIRDRIE
Administrative Policy:
INFORMATION GOVERNANCE AND MANAGEMENT (IGM) POLICY

Effective Date: July 31, 2014

Revision Date: October 24, 2017

Approved By: Senior Leadership Team

Approved On: July 31, 2014

Resolution #: _____

PURPOSE:

The purpose of this policy is to provide a framework to ensure consistent and cost-effective management of physical and electronic information within the City of Airdrie throughout its life cycle. The life cycle includes the creation, maintenance, use, storage and disposition. Compliance with this policy will ensure the reliability and accuracy of information and that information remains accessible over time.

SCOPE:

This policy applies to all employees, contractors, volunteers, and elected officials of the City of Airdrie and includes information in any and all formats, created or received in the course of business regardless of the device used to do so. The policy also applies to all business information systems used to create, manage, and store information.

DEFINITIONS:

- **Access:** The ability, right, and permission to use or the general availability of information. It includes both disclosure of information under the *Freedom of Information and Protection of Privacy Act* (FOIP) as a result of a request and the routine release of information that is available to the public or to an individual.
- **Active Information:** Information that is in current use and needs to be accessed frequently or on a regular basis.
- **Authentic:** Not false or copied. Having origin of unquestionable evidence.
- **Business Information Systems:** Information technology resources used to meet relevant organizational requirements. Includes all databases.
- **City:** The corporation of the City of Airdrie.
- **City Manager:** The Chief Administrative Officer or his delegate.
- **Corporate Information:** All information of every City department/business unit, board, commission, and committee that is evidence of or a part of a transaction or business decision.

- **Disposition:** The disposal of information no longer needed for day-to-day operations through destruction, secure destruction, or transfer of information of enduring value to archives.
- **Inactive information:** Information that is accessed less frequently and must be kept for a certain length of time to meet statutory, fiscal, or other requirements.
- **Indexed:** A manual or automated listing arranged differently from a related record series or system to speed retrieval of relevant information.
- **Information:** All forms of recorded information that is in the custody and control of the City, which includes but is not limited to documents, hand written notes, draft documents, voice mail, vouchers, drawings, letters, papers, email, books, maps, photographs, calendars, and post-it notes.
- **Life Cycle:** The stages of the life cycle of information include:
 - Creation – planning, collecting, creating, or generating information;
 - Maintenance – organizing or retrieving;
 - Use – using, accessing, or transmitting;
 - Storage – storing and protecting; and
 - Disposition – destroying or transferring to archives.
- **Information Management:** The application of systematic control to the life cycle of all forms of recorded information produced by the City in the conduct of its operations as dictated by information governance policies.
- **Information Governance and Management Program:** A planned, coordinated set of policies, procedures, standards, controls and metrics that specify how the City's information is managed as a business asset. Information governance provides structure to the strategy of information management.
- **Retention Period:** The total length of time information must be kept before final disposition is implemented. Retention periods are determined by business use, legislation, and/or a combination thereof. Information shall not be copied and/or retained after the retention period has expired.
- **Retention Schedule:** The timetable that identifies the retention period during which information must be retained before disposition.
- **Transaction:** The act of conducting or carrying out business, negotiations, or plans.
- **Transitory Information:** Information in any format that is required for a limited time to complete a routine action, is used in the preparation of final documents, or is retained as informational or convenience copies by business units or individuals.

POLICY:

Information is a corporate asset. The information of the City is an important source of administrative, fiscal, legal, evidential, and historical information. It is vital to the City in its current and future operations for the purpose of accountability, for an awareness and understanding of its history, in order to maintain an authentic and reliable evidence of its business decisions and transactions, and for strategic planning purposes. Information is the corporate memory of the organization.

The IGM Program functions in accordance with operational needs, fiscal/legal requirements, government regulations, and for historical purposes.

This policy provides for the requirements that must be met for the information of the City to be considered authentic and reliable evidence of the activity of the organization. It extends to assisting with the determination of requirements for systems, technologies and processes that touch information in any way.

Creating information:

Information, regardless of medium, must be created and captured by the employees of the City in accordance with this policy. Employees are responsible for knowing what information should be created in their role. Information created must provide a reliable and accurate account of business decisions, actions, and transactions. This includes all necessary information to support business needs including key information needed to capture the business context.

Information will be maintained in an approved library or system within an approved structure, classification system, and retention schedule using appropriate naming conventions for files and folders.

Maintaining information:

Information has a life cycle that runs from its creation and active use to its final disposition at the end of an approved retention period. It must be maintained in a way that ensures it is accessible and secure throughout its life cycle. Information must be scheduled for disposition according to the Retention Schedule.

Regular confidential disposal of transitory information is the responsibility of all employees in accordance with the Transitory Information Guidelines.

All information, regardless of medium, is subject to FOIP and will be managed consistent with FOIP guidelines and industry best practices throughout its life cycle as part of the management of recorded information.

All corporate information must be stored in approved libraries. Information transferred outside of the City's physical environment must be protected through information technology best practices.

Access to information:

The City complies with FOIP regardless of whether the request for information is within or outside of the Act. The City supports the principle of access to corporate information and information to those who require it to perform their duties, deliver services in an effective and efficient manner, and to facilitate reasonable public access to information in its custody or control.

Disclosures of information under FOIP or informal requests for information are processed according to the provisions of FOIP or within the spirit of that legislation. The City and its employees make every reasonable effort to assist and to respond to requestors openly, accurately, and completely.

Transferring Physical Information to IGM

Information becomes inactive when it is no longer needed for frequent reference. When no longer in active use, physical business information will be transferred by City business units to IGM for the remainder of the retention period.

Retention and Disposition of Information

Keeping information longer than necessary or not long enough is a liability to the City and complicates compliance with the FOIP Act and other legislation.

IGM, in conjunction with the business unit, is responsible for the disposition of information. The Retention Schedule sets out the appropriate periods that information must be retained. When information is no longer required to be kept, its destruction must be authorized and documented and disposal must be performed using approved methods according to the City's Disposition Process.

Information that is to be retained permanently must be managed if the information is to remain viable, authentic, and accessible and in accordance with the City's Long Term Digital Preservation Standard.

Legal Holds

The City of Airdrie has a duty to preserve relevant information whenever litigation or a FOIP request is reasonably anticipated, threatened or pending. Steps must be taken to suspend the disposal of all information in all formats, including transitory, in accordance with the Legal Hold Process. This duty arises regardless of whether the City is the initiator or the object of litigation.

City Manager

City Clerk

Information Governance and Management Information Security Classification Standard



The City of Airdrie creates, collects and processes a vast amount of information in multiple formats every day. The City needs information to be readily available to all those who require it to support effective decision making while at the same time protecting the integrity, confidentiality and value of the asset. The Information Security Classification applies to information in all formats, created or received in the course of business.

Why is security classification important?

There are several reasons why the City should be concerned about information security classification. These include:

- **Supporting routine disclosure and active dissemination:** Security classification of information assets is a critical component in identifying and facilitating the disclosure of information to the public. It can also help identify information that needs to be protected but might be inter-filed with or combined with unrestricted information.
- **Business efficiency and effectiveness:** In order to make effective and timely business decisions, information needs to be available for City employees. Barriers to collaboration or access to information result in duplication/copying of information and contributes to redundant, outdated and trivial information.
- **Protection of personal information:** The *Freedom of Information and Protection of Privacy Act* (FOIP) governs the collection, use and disclosure of personal information. The FOIP Act also governs the management of personal information – its protection, retention, and accuracy. Security standards support the effective application of the Act in the conduct of day-to-day business.
- **Protecting confidential information from unauthorized access:** In the normal operation of the City, certain information must remain confidential. Applying proper security classification and practices can safeguard against unauthorized access to confidential information.
- **Protecting intellectual property:** Intellectual property investments need to be protected to benefit the citizens of Airdrie. Appropriate security practices are needed to ensure an adequate level of protection.

How is a security classification determined?

Four criteria are the basis for deciding the security and access requirements for data and information:

- **Availability:** employees have access to and can find and use information when required;
- **Integrity:** data and information is complete, and only authorized changes are made to it;
- **Confidentiality:** information is accessed by authorized individuals, entities, or processes;
- **Value:** intellectual property is protected, as needed.

Information Governance and Management

Information Security Classification Standard



Regardless of security classification, information that is identified as required for an access to information request under the FOIP Act must be searched, located, and provided. In some circumstances, it may be necessary to apply additional security requirements due to acts and regulations. Legislation alone does not set the security classification level of information.

Legislative Services, Information Governance and Management and Information Technology will work with areas if any special considerations are identified with regard to information that is highly sensitive.

What is the Security Classification Structure?

The security classification standard for information assets at the City of Airdrie consists of four categories. These categories, with a description and examples of (including but not limited to) the types of information that might be found in that category, are outlined in the tables below. Please note that these categories reflect what can be seen by whom and does not broaden the ability for who can create, amend or delete information.

Classification	Description	Examples of Information Assets	Examples of Risk Impacts
Public	Information that is available to the general public or deemed public by legislation or through routine disclosure. Available to the public, all employees, volunteers, contractors, sub-contractors and agents.	<ul style="list-style-type: none"> • Job postings • Council Agenda and Minutes • Board Agenda and Minutes • News or media releases • Council Policies • Council approved budgets • Anything typically found on the website 	<ul style="list-style-type: none"> • Little or no impact • Minimal inconvenience if not available • Disclosure would not result in any loss or harm to an individual or the City (that is, no legal effect)
Internal Use	Information that is sensitive outside the City and needs to be protected. This information is available to employees, volunteers, contractors, sub-contractors and agents for business-related purposes and is consistent with FOIP.	<ul style="list-style-type: none"> • Policy interpretation • Staff meeting agendas and minutes • Draft request for proposals • Business information • Applications • Planning documents • Internal policies and procedures (excluding those published on the web) • Training manuals and documentation • Staff newsletters • Organization charts • Project charters, status reports • Unpublished financial reports • Completed budgets awaiting Council Budget Committee and/or Council approval 	<ul style="list-style-type: none"> • Unfair competitive advantage • Disruption to business if not available • Unauthorized disclosure, alteration or destruction could result in low level risk to an individual or the City

Information Security Classification

Internal Use

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Information Governance and Management Information Security Classification Standard



		<ul style="list-style-type: none"> Awarded contracts Business continuity plans 	
Confidential	Information that is sensitive within the City of Airdrie (includes highly sensitive personal information) and is available only to named individuals or a specific position, function, group or role.	<ul style="list-style-type: none"> Payroll and Benefits information Personnel information Individual Health and Safety information 3rd party business information submitted in confidence Information covered by non-disclosure / confidentiality agreements Passwords Information collected as part of investigations Incident reports Personal medical/disability information (benefits information) Enforcement information Specific FOIP requests In camera minutes Contracts where confidentiality is specifically noted. 	<ul style="list-style-type: none"> Loss of personal or individual privacy Loss of trade secrets or intellectual property Loss of reputation Loss of competitive advantage Financial loss Unauthorized disclosure, alteration or inaccessibility would have an adverse effect on the City, employees, volunteers, contractors, customers
Restricted	Information that is highly sensitive and available only to specific, named individuals or specific positions. If compromised could cause severe harm to an individual or the City.	<ul style="list-style-type: none"> Criminal records checks Criminal investigations High risk infrastructure maps IP addresses 	<ul style="list-style-type: none"> Loss of life Loss of public safety Significant financial loss Significant damage Compromise of the legal system Sabotage or terrorism Unauthorized disclosure, alteration or inaccessibility would have a severe effect on the City, employees, volunteers, contractors, customers

Related Standards or Processes

- Information Security Handling Standards

Information Governance and Management

Information Security Handling Process



Purpose

In addition to applying a classification level to information, an important part of information classification involves identifying the access/security, labelling and storage controls to be applied to each level. The Information Security Handling Process provides the various technical and organizational controls required to ensure appropriate security practices are applied in the management of the City's information assets. Appropriate handling supports customer service, efficient operations and ensures that integrity is maintained.

Scope

This Process applies to all information assets in all formats, created or received in the course of business and applied in accordance with the Information Security Classification Standard.

Appropriate Access to Data and Information

When accessing data and information that is classified as Internal Use, Confidential or Restricted, auditing and tracking procedures are required to ensure authorized access.

Access Methods

Classification	Physical or Electronic Access Restrictions	Audit/Activity
Public	<ul style="list-style-type: none">• Access open to the public and all employees, contractors, sub-contractors, and agents• Can be published if it is of value/interest to the public• Determination to publish material is made by the business unit	<ul style="list-style-type: none">• None
Internal Use	<ul style="list-style-type: none">• Authorized access (employees, contractors, sub-contractors and agents) for business related purposes	<ul style="list-style-type: none">• Periodic audits to show protection is, in fact, occurring
Confidential	<ul style="list-style-type: none">• Access limited to individuals in a specific position, function, group or role	<ul style="list-style-type: none">• Permission based on employee position or contractor, sub-contractor or agent relationship• Log of access/actions• Periodic audits of adequate protection
Restricted	<ul style="list-style-type: none">• Access limited to named individuals or specific position	<ul style="list-style-type: none">• All access or actions will be logged and subject to validation processes as appropriate

City of Airdrie Cloud Computing Standard

Information Governance and Management

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Purpose

Cloud computing refers to the delivery of computer services (e.g., servers, databases, applications and more) over the Internet ("the cloud"). Cloud services companies ("cloud providers") are increasing rapidly, offering solutions for businesses and individuals alike. There are many compelling reasons to consider cloud-based solutions within organizations as they can enable agile, flexible and cost-effective IT services. However, there are also some risks and challenges with cloud based solutions, including, but not limited to, compliance with privacy legislation.

The City's goal is to enable effective governance while also ensuring compliance with privacy legislation. As a risk mitigation strategy, the City has developed this Cloud Computing Standard. The purpose of this standard is to set out how the City of Airdrie's information must be preserved when stored, used or transmitted by a third-party cloud provider.

Scope

This standard applies to all employees using technology to fulfill their duties for the City of Airdrie. All information technology applications and services are subject to this standard, regardless of their use or physical location.

Cloud Computing Standard Specification

1. All City of Airdrie Information that contains "personal information" (as defined by Alberta's *Freedom of Information and Protection of Privacy Act*) or that is classified as, Confidential or Restricted in accordance with the City of Airdrie's Information Security Classification Standard must be stored in City of Airdrie approved computing facilities located within the geographic boundaries of Canada. Those cloud providers that will hold personal information as described above will be given priority consideration if they provide certification evidence of compliance with the International Organization of Standardization ISO/IEC: 27018:2014 Code of Practice for Protection of Personally Identifiable Information in Public Clouds.
2. City of Airdrie information classified as Public or Internal Use can be stored with a City of Airdrie approved cloud provider outside the geographic boundaries of Canada.
3. All cloud providers are expected to provide documentation/evidence of information security management processes with priority consideration given to applications or services in compliance with the ISO/IEC 27001 Information Security Management standard.
4. When in "transit", within Canada or internationally, all information (Internal Use, Confidential or Restricted) will be encrypted.
5. City of Airdrie employees will not utilize personal (free or fee based) cloud computing services such as Dropbox, Box, Amazon Cloud Drive, Google Drive, or any similar solutions for the storage or transmittal of any City of Airdrie information.
6. An Information Governance and Management Business Systems Assessment and Privacy Impact Assessment must be completed for all cloud providers. Even though a cloud provider may be able to comply with the data residency requirements of being within Canada, a cloud provider may not be approved if they are not able to adequately comply with the conditions set out in the Business System Assessment, Privacy Impact Assessment or with the requirements specified below for Cloud provider service agreements.
7. Service Agreements will exist with all cloud services providers providing applications or services. The agreements must include, at minimum, the following requirements:

- a. Clear confidentiality, integrity and availability assurances including the handling/treatment of confidential or sensitive information in accordance with the Province of Alberta's *Freedom of Information and Protection of Privacy Act* (FOIP).
- b. Assurances regarding data residency remaining in Canada including secondary or subsequent backups.
- c. Employee security awareness and training.
- d. Limitations on information collection, use and disclosure.
- e. Information ownership must remain solely with the City of Airdrie.
- f. Vulnerability management requirements including periodic vulnerability assessments and penetration testing.
- g. Suitability requirements on the third party, including the provision of independent audits and audit attestations on information security controls.
- h. When credit card data is involved, the requirement to demonstrate ongoing compliance as a service provider to the Payment Card Industry Data Security Standard.
- i. Information Security incident response, management and notification requirements.
- j. Limits and requirements on subcontracting.
- k. Encryption methods being utilized when information is at rest and when in transit.
- l. Parameters for restricting access to personal information including utilization of protected audit trails that will be available to the City of Airdrie.
- m. Parameters regarding communications in the event of a breach.
- n. Business continuity procedures in the event of an outage.
- o. Restrictions on the cloud provider (or a third-party) to access, use or analyze the information for its own purposes, including but not limited to, advertising purposes.
- p. Protocols related to granting access to foreign courts, government agencies and law enforcement.
- q. Provisions governing the return (including methods and formats for transfer) and secure destruction of information in the cloud provider's possession upon contract termination.

Related City of Airdrie Policies, Standards and Processes

The following policies, standards and processes are related or provide additional direction and should also be reviewed:

- IT Computer Use Policy
- Information Governance and Management Policy
- Information Security Classification Standard
- Information Security Classification Handling Process
- IGM Business System Assessment

Standard Review and Approval

The IGM Program team (which includes members from IGM, IT and Legislative Services) will review this standard every two years from the date of the original approval.

The Information Governance and Management Steering Committee (IGMSC) is responsible for approval of this standard.

References

ATIA - 19(1)

This standard draws upon the research, standards, efforts and publications of the following organizations:

- [Government of Canada IT Policy Implementation Notice 2017-02 Direction of Electronic Data Residency](#)
- [Government of Canada Cloud Adoption Strategy](#)
- [The Government of Nova Scotia Bill No.19 Personal Information International Disclosure Protection Act, 2006](#)
- [The Government of British Columbia Bill 73 – the Freedom of Information and Protection of Privacy Amendment Act, 2004](#)
- [Government of Alberta Cloud Computing Reference Architecture Standard A000064](#)
- [US Government NIST Cloud Computing Reference Architecture](#)

Version Management

Version	Author	Comments
0.1		Original Draft
0.2		Incorporated feedback from Jay Stoudt, Manager, Information Technology
0.3		Incorporated feedback from Sharon Pollyck, Director, CAO Office
0.4		Incorporated feedback from Jelena Maric, Team Lead – Procurement, Insurance and Risk
1.0		Issued for review and endorsement by IGMSC
2.0		

Approvals

Version	Version Description	Approved By / Date

Information Governance and Management

Information Security Handling Process



Labeling Data and Information

The table below provides the labeling techniques for various types of information in all forms. The actual labeling procedure will vary depending on the media type in which the data and information is stored.

Labeling Methods

Classification	Print/Hard Media	Digital Files
Public	<ul style="list-style-type: none"> No labelling requirements 	<ul style="list-style-type: none"> No labelling requirements
Internal Use	<ul style="list-style-type: none"> For information received from external sources, documents do not require specific labelling and are deemed to be Internal Use unless otherwise classified For hard-copy documents created internally, Internal Use will be in the footer of all documents 	<ul style="list-style-type: none"> Identify security classification in document metadata according to Minimum Metadata Standard Information Security Classification will be visible in footer of all pages of electronic documents
Confidential	<ul style="list-style-type: none"> For information received from external sources, documents will be ink-stamped with Confidential on the first page in footer if possible Information received from external sources that has been classified will remain Confidential or higher as applicable For hard-copy documents created internally, Confidential will be in the footer of all documents Hard media such as CDs, DVDs, and USB drives will be identified as Confidential with the application of adhesive labels For hard media created internally, Confidential will also be displayed when the information stored on the media is accessed 	<ul style="list-style-type: none"> Identify security classification in document metadata according to Minimum Metadata Standard Information Security Classification will be visible in footer of all pages of electronic documents The subject line of emails will contain "Confidential" as part of the subject line
Restricted	<ul style="list-style-type: none"> For information received from external sources, documents will be ink-stamped with Restricted on the first page in footer if 	<ul style="list-style-type: none"> Identify security classification in document metadata according to the Minimum Metadata Standard Information Security

Information Security Classification

Internal Use

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Information Governance and Management

Information Security Handling Process

	<p>possible</p> <ul style="list-style-type: none"> Information received from external sources that has been classified will remain Confidential or higher as applicable For hard-copy documents created internally, Restricted will be in the footer of all documents Hard media such as CDs, DVDs, and USB drives will be identified as Restricted with the application of adhesive labels For hard media created internally, Restricted will also be displayed when the information stored on the media is accessed 	<p>Classification will be visible in footer of all pages of electronic documents</p> <ul style="list-style-type: none"> The subject line of emails will contain "Restricted" as part of the subject line
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Storing Data and Information

Depending on the security classification, data and information will need different types of storage processes to ensure that the availability, confidentiality, integrity and value of the data and information are protected. Backups require the same care as originals.

Storage Methods

Classification	Print/Hard Media	Digital Files
Public	<ul style="list-style-type: none"> No special storage requirements 	<ul style="list-style-type: none"> No special storage requirements Regular back-ups to ensure availability and integrity
Internal Use	<ul style="list-style-type: none"> Store within City of Airdrie facilities or buildings Keep out of public view 	<ul style="list-style-type: none"> All media under physical and/or logical access control e.g. limited system administration access, monitored connections to networks, system files and data)
Confidential	<ul style="list-style-type: none"> Secure location with limited access Clean desk 	<ul style="list-style-type: none"> All media under physical and/or logical access control of confidential zone (e.g., authorized access and authenticated access)
Restricted	<ul style="list-style-type: none"> Stored in highly secure location with access tracking Clean desk Audit trail for all access (e.g., access report from locked file room; signatures) 	<ul style="list-style-type: none"> All media under physical and/or logical access control of restricted zone (e.g., single or double authentication, encrypted data, audit and monitoring)

Information Governance and Management

Information Security Handling Process

Transmitting Data and Information

When transmitting data and information that is classified as Internal Use, Confidential or Restricted special protection procedures are necessary as follows:

Transmission Methods

Classification	Print/Hard Media	Digital Files
Public	<ul style="list-style-type: none"> No special procedures 	<ul style="list-style-type: none"> No special procedures
Internal Use	<ul style="list-style-type: none"> Sealed envelope Regular mail or courier 	<ul style="list-style-type: none"> Message sent in such a way to prevent interception, modification, or unauthorized receipt en route or at destination (e.g., encryption used to send/authenticate message) CoA Email is encrypted by default as it is sent
Confidential	<ul style="list-style-type: none"> For information transmitted internally, use locked blue bag, marked "Confidential" or "To be Opened by Addressee Only" via internal mail/courier For information transmitted externally, use sealed envelope or tamper evident packaging marked "Confidential" or "To be Opened by Addressee Only" via regular mail or courier as appropriate 	<ul style="list-style-type: none"> Information sent in such a way to prevent interception, modification, or unauthorized receipt en route or at destination (e.g., encryption used to send/authenticate message) When sent via email, subject line will contain "Confidential" as part of the subject line Audit trail of access
Restricted	<ul style="list-style-type: none"> For information transmitted internally, use tamper evident packaging (e.g., locked blue bag with inside envelope signed over seal to reveal evidence of tampering), marked "Restricted" or "To be Opened by Addressee Only" via internal mail/courier For information transmitted externally, use tamper evident packaging marked "Restricted" or "To be Opened by Addressee Only" via registered mail or courier as appropriate Information transmitted internally or externally will be 	<ul style="list-style-type: none"> Message sent in such a way to prevent interception, modification or unauthorized receipt en route or at destination (e.g., encryption used to send/authenticate message) When transmitting Restricted information externally, the file must be password protected Audit trail of access

Information Security Classification

Internal Use

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Information Governance and Management

Information Security Handling Process



	under a continuous chain of custody with documented receipts covering each individual who obtains custody	
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Other Considerations

When handling information that is classified Internal Use, Confidential or Restricted, additional security measures should be taken commensurate with information value, sensitivity, and the risk level identified:

- Do not leave documents and screens unattended or unsecured.
- Position documents and screens to prevent inadvertent disclosure.
- Access information from its original source when at all possible.
- Keep hard copies or printed versions of information to a minimum.
- Transitory information (convenience copies, etc.) must be disposed of in a secure shredding receptacle. All other information, in any form or medium, must be retained and disposed of as required by the City of Airdrie Retention Schedule and Disposition Process.
- Erase all white/smart boards at the end of meetings.
- All information collections, in any form, containing differing classification levels must be classified as a whole at the highest classification level within the collection. (e.g., file, database, emails and attachments, filing cabinet).
- If there is any ambiguity with respect to confidentiality, the information will be classified as Confidential until it can be definitively classified at a lower level.

Related Standards or Processes

- Information Security Classification Standard
- Administrative Policy – Computer Use
- Effective Jan 1, 2019 - this process does not apply to information created or received prior to this date (e.g., labelling)

Legal Hold Process

Information Governance and Management

Version Management

Version	Author	Comments
1.0	Carmen Maidstone	Original Draft
2.0	Carmen Maidstone	Revised November 1, 2017

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Purpose

To set the authority and process for initiating, implementing, monitoring, and releasing legal holds on City information (physical and electronic) in the event of litigation, anticipated litigation, audit, investigation, Freedom of Information and Protection of Privacy (FOIP) request or other such matter to avoid evidence spoliation.

Scope

This process applies to all information, regardless of form, made or received in the transaction of the City's business as well as requests related to the *Freedom of Information and Protection of Privacy Act* (FOIP). Compliance is required by all City business units, employees, volunteers, consultants and contractors.

Definitions

Disposition – The disposal of information no longer needed for day-to-day operations by a City department/business unit through destruction, secure destruction, or transfer of records of enduring value to archives.

Electronic information - All forms of electronic information, including documents or data stored in systems, including but not limited to, email, word processing documents, presentations, calendars, spreadsheets, voice messages, videos, photographs, text messages, or information stored in any mobile devices.

Freedom of Information and Protection of Privacy (FOIP) Request – A formal method of requesting information held by public bodies through the *Freedom of Information and Protection of Privacy Act*.

Legal Hold – A process that an organization uses to prohibit destruction and to preserve all information, regardless of form, related to the nature or subject of the anticipated legal action, audit, investigation, FOIP request or other such matter to avoid evidence spoliation.

Legal Hold Notice – A directive providing instructions to individuals and/or business units to ensure the preservation of all information in the City's possession or control related to the subject matter.

Litigation - The process of taking a case to a court of law so that a judgment can be made.

Preservation of information – Protection from destruction, alteration, or mutilation to prevent spoliation.

Responsive or Relevant Information – Information related to the nature or subject of potential legal actions.

Retention Schedule – The timetable that identifies the retention period during which information must be retained before disposition.

Spoliation – The intentional, reckless, or negligent withholding, hiding, altering, fabricating, or destroying of evidence (information) relevant to a legal proceeding.

Transitory Information - Information in any format (paper or electronic) that is required for a limited time and does not need to be filed or retained. It is used to complete a routine action in the preparation of final records or as information or convenience copies by business units or individuals.

The Legal Hold Process

The City of Airdrie has a duty to preserve relevant information whenever litigation or a FOIP request is reasonably anticipated, threatened or pending. This duty arises regardless of whether the organization is the initiator or the object of litigation.

Once a legal hold is triggered there is a duty to preserve all information which may be deemed to be relevant to supporting the litigation. The duty to preserve supersedes Information Governance & Management policies or retention and disposal schedules that would otherwise result in the destruction of information. The organization must take the necessary steps to implement the hold and suspend the disposal of all information, including transitory, in all formats which may be deemed to be relevant.

Notification of Legal Hold

Legal holds will be initiated by Legislative Services:

1. If a business unit receives notice of action or potential action;
2. When a formal notice of legal action has been received (e.g., statement of claim, originating application, subpoena, other formal notice of the commencement of legal action);
3. When the City has been notified of potential or anticipated legal action;
4. When the City has received a request for information under the *Freedom of Information and Protection of Privacy Act (FOIP)* or has been notified of review, investigation or inquiries by the Office of the Information & Privacy Commissioner;
5. In any other circumstances the City deems appropriate or legislation requires.

Responsibilities

Legislative Services

1. Determine if circumstances merit the need for a legal hold;
2. Notify business units or individuals of accountability of the initiation of a Legal Hold and the information that is considered responsive or relevant; this will be in the form of a Legal Hold Notice;

The following should be included in a Legal Hold Notice:

- a. an explanation of the preservation obligation and the consequences that can result from failing to follow the directive;
- b. an explanation that the Legal Hold Notice is privileged and instructions to not discuss the matter with individuals other than Team Leader/Manager/Director or Legislative Services;
- c. a description of the matter, including relevant time period;
- d. a description of the scope of information to be preserved;
- e. a description of the types of information to be preserved;
- f. a directive to cease document retention/destruction policies;
- g. directions to departing employees (if applicable);
- h. instructions on how to handle instant messaging, blogging and social media and personal devices;

- i. instructions on who to contact with questions relating to the legal hold;
 - j. a read receipt will be accepted as an acknowledgement that the employee has read, understands and agrees to be bound by the legal hold;
- 3. Develop preservation plan(s) if necessary;
- 4. Coordinate consistent preservation and production advice and practices;
- 5. Assist business units or individuals to comply with the Legal Hold Notice;
- 6. Review the legal hold periodically and modify if required;
- 7. Ensure follow up or any other required actions;
- 8. Retain a copy of the Legal Hold Notice that has been issued and a distribution list for the notice for the duration of hold;
- 9. Maintain Legal Hold Register;
- 10. Remove the hold when appropriate to do so (see Removal of Legal Hold).

Business Unit

- 1. Notify Legislative Services if notified of legal action or potential action;
- 2. Review the Legal Hold Notice and acknowledge its receipt (a read receipt is accepted as an acknowledgement);
- 3. Request that relevant staff identify the location of all potentially responsive or relevant information and provide a hard copy to Legislative Services with file path duly noted on the document (as an organization do we want this to become the standard?). If the information is currently being worked on, the documents are to be provided to Legislative Services as creation or revision occurs;
- 4. Provide relevant computers/devices (including personally-owned computers and mobile devices if requested);
- 5. Comply with any instructions accompanying the Legal Hold Notice;
- 6. Contact Legislative Services when needing access to a document or file containing information that may be relevant to the legal hold;
- 7. Retain a copy of the Legal Hold Notice that has been issued for the duration of the legal hold;
- 8. Resume normal business practice upon notification of removal of the legal hold.

Information Governance & Management

- 1. Review the Legal Hold Notice and acknowledge its receipt in writing (read receipt is not acceptable);
- 2. Suspend any retention policy or records retention and disposal schedule affected by the legal hold;
- 3. Identify any potential sources of relevant information in all formats;
- 4. Collect and preserve information as determined in the Legal Hold Notice (see Preservation of Information);
- 5. Comply with any instructions accompanying the Legal Hold Notice;
- 6. Assist in departmental compliance;
- 7. Retain an official copy of the Legal Hold Notice that has been issued and a distribution list for the Legal Hold Notice;
- 8. Resume records retention schedule, authorized disposal of records and resumption of transitory records disposal and normal business practice upon notification of removal of the legal hold;
- 9. Collect/maintain the overall record of the legal hold from all relevant departments once the legal hold is removed.

Information Technology

1. Review the Legal Hold Notice and acknowledge its receipt (a read receipt is accepted as an acknowledgement);
2. Work with Legislative Services, IGM, and the business unit to identify the scope of electronic records that must be preserved, the identification methods, collection processes, and searches;
3. Collect and preserve electronic information if possible to do so without changing the nature of the information;
4. Make the electronic records available in appropriate formats;
5. Comply with any instructions accompanying the Legal Hold Notice;
6. Retain a copy of the Legal Hold Notice that has been issued and a distribution list for the Legal Hold Notice for the duration of the legal hold;
7. Resume normal business practice upon notification of removal of the legal hold.

Preservation of Information

1. The City of Airdrie is required to preserve all information in its custody and control that is responsive or relevant to a Legal Hold Notice including the following:
 - a. physical/paper (including information in inactive storage);
 - b. electronic;
 - c. transitory information;
 - d. information that may reside on other devices owned or used by employees in the course of their employment.
2. Responsive or relevant information must be maintained until the resolution of the legal issue or request:
 - a. information must not be manually destroyed or modified once an employee is aware of a request to implement a legal hold. If the information is currently being worked on, the documents are to be provided to Legislative Services as creation or revision occurs;
 - b. the disposition process must be halted for any relevant information that is scheduled for destruction, disposal or deletion (including transitory information);
 - c. whenever possible, information will be maintained in its original format.
3. Examples of preservation methods may include but not be limited to:
 - a. for electronic information suspension of auto-delete program(s); securing or imaging a hard-drive; securing and preserving a backup tape or backup media; and/or sequestering information;
 - b. for paper information making photocopies, sequestering original paper information to protect from loss, destruction or alteration; and/or storage in secured IGM location or other approved secure area;
 - c. any other instruction contained in the Legal Hold Notice as deemed advisable.

Removal of Legal Hold

1. Insurance and Risk Management is obligated to notify LS when any issue subject to legal hold has been concluded;
2. When the litigation has been concluded, or impending litigation, investigation or request has been resolved:
 - a. Legislative Services will notify the appropriate individuals on the notification list that the legal hold has been removed;

- b. released information will resume normal retention requirements;
- c. transitory information may be disposed of without further approval.

Compliance

Failure to implement a legal hold could result in significant negative consequences to the City. It could result in the City being unable to prove its legal claim against others, a court may make an adverse inference against the City for failing to produce information, the City could be subject to the striking of some or all of its claims or defenses, or the City may have to pay costs or other penalties.

Any violations of this process will be managed in accordance with City's Management of Performance program.

Information Governance and Management

Disposition of Information Process



Purpose

Information provides evidence of business decisions, plans and actions, and a background and basis for future actions. It demonstrates accountability and preserves the documentary history of the City. Disposition is an important part of managing information, ensures that the City retains information for as long as it is needed and then, when no longer needed, destroys it in an appropriate manner or permanently archives it due to its historical value.

The purpose of this Process is to outline the requirements to ensure that information is dispositioned safely, securely, and at the right time in accordance with the City of Airdrie Information Governance and Management Policy, Retention and Disposition Bylaw No. B-14/2018 and Retention Schedule.

A managed disposal process reduces storage costs incurred by using office or server space to maintain information no longer needed. It supports compliance with legal requirements and provides consistency across the organization for the retention and disposition of information.

Scope

This process applies to the disposition of all information in all formats that is created or received during the course of business at the City of Airdrie, including but not limited to:

- handwritten, typed, or printed hardcopy (i.e., paper) documents;
- electronic records and documents (e.g., information stored on networks, hard drives, CDs, USB drives, DVDs, tapes);
- video or digital images (e.g., CCTV, in car camera);
- graphic representations;
- information contained in business or transactional systems;
- information contained on network servers and/or document management systems; and
- recorded audio material (e.g., in car camera, voice recordings).

Information that is transitory (of limited value) is excluded from this process and will be handled as outlined in the Transitory Information Guideline. All information appraised as having historical or other value to warrant continued preservation will be retained permanently.

Retention and Storage of Information

Physical information no longer required for daily business use (excluding transitory information) will be transferred to Information Governance and Management (IGM) and managed in secure file rooms; electronic information will be managed in the Electronic Document and Records Management System (EDRMS) or other approved business system. All information will be maintained in accordance with the City of Airdrie's Retention Schedule until it is eligible for disposition.

Information Governance and Management

Disposition of Information Process



Before disposition can occur, the following must be confirmed:

1. the information has been authorized for destruction in accordance with the requirements of the City's approved Retention Schedule;
2. there is no active or pending audit, FOIP request, investigation, or legal matter that involves the information in question (see Legal Hold Process);
3. the information is no longer required under any other legislation and all legal requirements are fulfilled; and
4. the records are of no further administrative or business use.

Authorizing Disposition

IGM will identify information that is eligible for disposition on an annual basis. IGM will complete a comprehensive inventory and review to confirm eligibility of the information to be dispositioned.

An eligibility list will be provided to the Team Leader and Manager/Director of the originating business unit for review, approval and sign-off.

Information holds may be requested by a Team Leader/Manager on information eligible for final disposition if there is an immediate or ongoing need for the information; e.g., the information is required for current or upcoming litigation, audits, inquiries or requests for information under the *Freedom of Information and Protection of Privacy Act*. A hold may also be placed by IGM if the retention of the scheduled information in question is under review or amendment.

Once approved by the business unit, the eligible information will be given final review, approval and sign-off by IGM prior to disposition and will serve as documentation of the information destroyed.

Disposal of Information

Destruction of information must be irreversible to mitigate the risk of unauthorized access or of it being recovered, retrieved or reconstructed. Once eligible information has received final approval for disposition by IGM, it will be destroyed by the appropriate method:

1. **Physical Information:**

All paper information will be destroyed (cross-cut shredding) on-site by the approved shredding service and witnessed by IGM.

Disposition of Physical Source Documents:

Original paper source documents can be disposed of after digitization (scanning) where the process has been approved and documented procedures exist, and all Quality Assurance procedures are completed as outlined in the Digitization Procedure Manual.

2. Digital Information:

All digital/electronic information will be deleted and/or overwritten by an authorized system administrator to ensure that the information is inaccessible and unrecoverable. This will include backup media such as magnetic tapes, CDs, storage area networks (SANs).

3. Other Electronic Media:

- a. Computer hard drives will be overwritten with 3 passes of a data erasure software prior to being reused internally/externally or decommissioned. Hard drives can be shredded in the same way as paper or destroyed by demolition with certificate of secure destruction.
- b. Photocopiers and multifunction printers on lease must have the hard drives overwritten prior to being replaced.

Documenting the Disposal of Information

The destruction of all records must be appropriately documented so that the City is able to provide proof of when information has been destroyed. Proof of destruction may be required in legal proceedings or in response to FOIP requests. Once the information has been destroyed, it is important that the City retains evidence that destruction has occurred.

1. Physical Information:

- a. All lists of approved eligible information received from business units will be retained permanently. Documentation will outline the information destroyed, including:
 - Record series description
 - Box Number
 - Date of destruction
 - Master Area
 - Date span of the records series
 - Retention code and description
 - Approval and authorized signature
- b. A certificate of destruction provided by the destruction service vendor including the number of boxes destroyed and the date of destruction will also be required.

c. An affidavit confirming that the destruction took place, the date, time and method of destruction will be signed by the IGM witnesses of the destruction.

d. All documentation will be retained together permanently.

2. Digital Information:

a. In all systems where information is maintained, execution of disposal schedules will provide details of the electronic information that has been deleted, including but not limited to:

- Title
- Date of destruction
- Metadata of the information (creator, file type, retention classification)
- Approvals for destruction

b. The disposition certificate will be preserved permanently.

Review and Approval

This Process will be approved by the Information Governance and Management Steering Committee. It is to be formally reviewed at a minimum of every two years.

Other Related Policies, Standards or Processes

Employees should refer to the following for more information:

City of Airdrie Information Governance and Management Policy
City of Airdrie Retention and Disposition Bylaw No. B-14/2018
City of Airdrie Retention Schedule
City of Airdrie Retention Schedule Change Process
City of Airdrie Legal Hold Process

PRIVACY BREACH MANAGEMENT

A privacy breach occurs when there is unauthorized access to or collection, use, disclosure or disposal of personal information. Such activity is "unauthorized" if it occurs in contravention of the *Freedom of Information and Protection of Privacy Act*.

A typical privacy breach would involve the personal information of our residents, clients or employees being stolen, lost or mistakenly disclosed (for instance if a computer containing personal information is stolen or personal information is mistakenly emailed to the wrong person).

Some examples of what a privacy breach may look like are:

- A person hacks into the City's computer system and obtains personal or confidential third party business information;
- An employee sends a fax or email containing personal information to the wrong number or email address;
- An employee mails a letter containing personal information to the wrong address;
- An employee takes work home that contains privileged, personal or confidential third party business information and a spouse or any other person reads that information.
- Files or paper records containing personal or confidential third party business information are lost or stolen.
- Laptops that are able to provide access to personal or confidential third party business information are lost or stolen.
- City cellphones are lost or stolen.
- Flash drives containing personal or confidential third party business information are lost or stolen.

What should you do in the event of any known or suspected breach of personal and/or confidential third party business information?

1. **IMMEDIATELY contact Legislative Services** at 8816 or legislative.services@airdrie.ca.
2. **Contact your supervisor.**
3. **Contain the breach:** Immediately stop the unauthorized practice, recover the records and correct weaknesses in physical security

While reporting a privacy breach to the Information and Privacy Commissioner is not mandatory under FOIP, any breach of privacy can have serious implications for both the person whose privacy was breached and the City, so it is critical that the City has a privacy breach management process in place to deal with any privacy breach.

Attached is a document produced by the Office of the Information and Privacy Commissioner of Alberta that outlines various different causes of breach that may result from human error, theft, system compromise or inadequate access control and includes recommendations on how to prevent such breaches.

BREACH MANAGEMENT PROCESS (for Legislative Services)

Immediate response to any breach or suspected breach is required immediately in every instance. The first 3 steps indicated below should be undertaken concurrently or in quick succession.

Step 1: CONTAIN THE BREACH

- The breach needs to be contained immediately, whether this means stopping the unauthorized practice, recovering the records, shutting down the system that was breached or correcting weaknesses in physical security. This may have already been done by the unit that discovered the breach, but please confirm the steps that were taken to ensure containment has been handled adequately.
- If the breach involves theft or other criminal activity, notify the RCMP.

Step 2: RISK EVALUATION

Conducting a risk assessment is vital to determine whether any other steps are required to be taken immediately. Factors to be taken into consideration include:

- **Personal Information Involved**
 - What types of data were involved in the breach? The more sensitive the data, the higher the risk (SIN numbers and financial information are two examples)
 - Consider what the possible uses could be for the personal information that was breached? Could it be used for identity theft, fraud or other detrimental purposes?
- **Cause and Extent of the Breach**
 - What is the cause of the breach?
 - Is there a risk of ongoing or further exposure of the information?
 - What was the extent of the unauthorized collection, use or disclosure, including the number of likely recipients and the risk of further access, use or disclosure, including in mass media or online?
 - Is the information encrypted or otherwise not readily accessible?
 - What steps have you already taken to minimize the harm?
- **Individuals Affected by the Breach**
 - How many individuals are affected by the breach?
 - Who was affected by the breach: employees, public, contractors, clients, service providers, other organizations?
- **Foreseeable Harm from the Breach**
 - Is there any relationship between the unauthorized recipients and the data subject?

- What harm to the individuals will result from the breach? Harm may include:
 - security risk (physical safety, for example);
 - identity theft or fraud;
 - loss of business or employment opportunities; and
 - hurt, humiliation, damage to reputation or relationships.
- What harm could result to the organization, public body or custodian as a result of the breach? For example:
 - loss of trust in the organization, public body, or custodian;
 - loss of assets; and
 - financial exposure.
- What harm could result to the public as a result of the breach? For example:
 - risk to public health; and
 - risk to public safety.

Step 3: NOTIFICATION

As a public body that collects and holds personal information, we are responsible for notifying affected individuals in the event of a privacy breach. Any breach of information by a third party contracting with the City that has collected personal information on the City's behalf has a duty to notify the City. It is then the City's responsibility to provide notification.

The City must look at the risk assessment and weigh whether notification is necessary to avoid or mitigate harm to an individual whose personal information has been inappropriately collected, sued or disclosed in order to determine whether notification is required.

If it is decided that notification is required, the following steps should be taken:

➤ Notification to Affected Individuals

Some things to consider in determining whether notification is necessary:

- **Does legislation require notification?**
- **Contractual obligations require notification:** Does the City have a contractual obligation to notify affected individuals in the event of a privacy breach or loss of data?
- **Risk of identity theft or fraud:** How reasonable is the risk? Identity theft is a concern if the breach includes unencrypted information such as names in combination with SINS, credit card numbers, driver's license numbers, personal health numbers, debit card numbers with password information or any other information that can be used for fraud by third parties.
- **Risk of physical harm:** Does the loss of information place any individual at risk of physical harm, stalking or harassment?
- **Risk of hurt, humiliation or damage to reputation:** This type of harm can occur with the loss of information such as disciplinary records.

- **Risk of loss of business or employment opportunities:** Could the loss of information result in damage to the reputation of an individual, affecting business or employment opportunities?

➤ **When and How to Notify**

When: As soon as possible following a breach. *If the RCMP have been contacted, please check with them to ensure notification will not impact a criminal investigation.*

How: Direct notification to affected individuals is preferred, either by telephone, letter or in person, especially where:

- the identities of the individuals are known;
- current contact information for the affected individuals is available;
- individuals affected by the breach require detailed information in order to properly protect themselves from any potential harm resulting from the breach; and/or
- individuals affected by the breach may have difficulty understanding an indirect notification (due to mental capacity, age, language, etc.).

We should only use indirect notification methods (posting on our website, notices in the newspaper, on the radio or posted elsewhere) in the following cases:

- direct notification could cause further harm;
- the costs of direct notification would be prohibitive;
- we do not have sufficient contact information to support direct notification; or
- due to the large number of affected individuals, direct notification would be impractical.

** In some cases multiple forms of notification may be appropriate and the most effective.

➤ **What Should the Notification Include?**

- date of the breach;
- description of the breach (a general description of what occurred);
- description of the information inappropriately accessed, collected, used or disclosed;
- the steps taken so far to mitigate the harm;
- the next steps planned and any long term plans to prevent future breaches;
- the steps the individual can take to further mitigate the risk of harm. We should provide information about how individuals can protect themselves. This may include:
 - how to contact credit reporting agencies; or
 - information on how to change a driver's license number.
- contact information of an individual within the City who can answer questions or provide further information. This should be discussed and confirmed by the FOIP Head.
- that individuals have a right to complain to the Office of the Information and Privacy Commissioner, including contact information for the Commissioner's office.

➤ Others to Contact

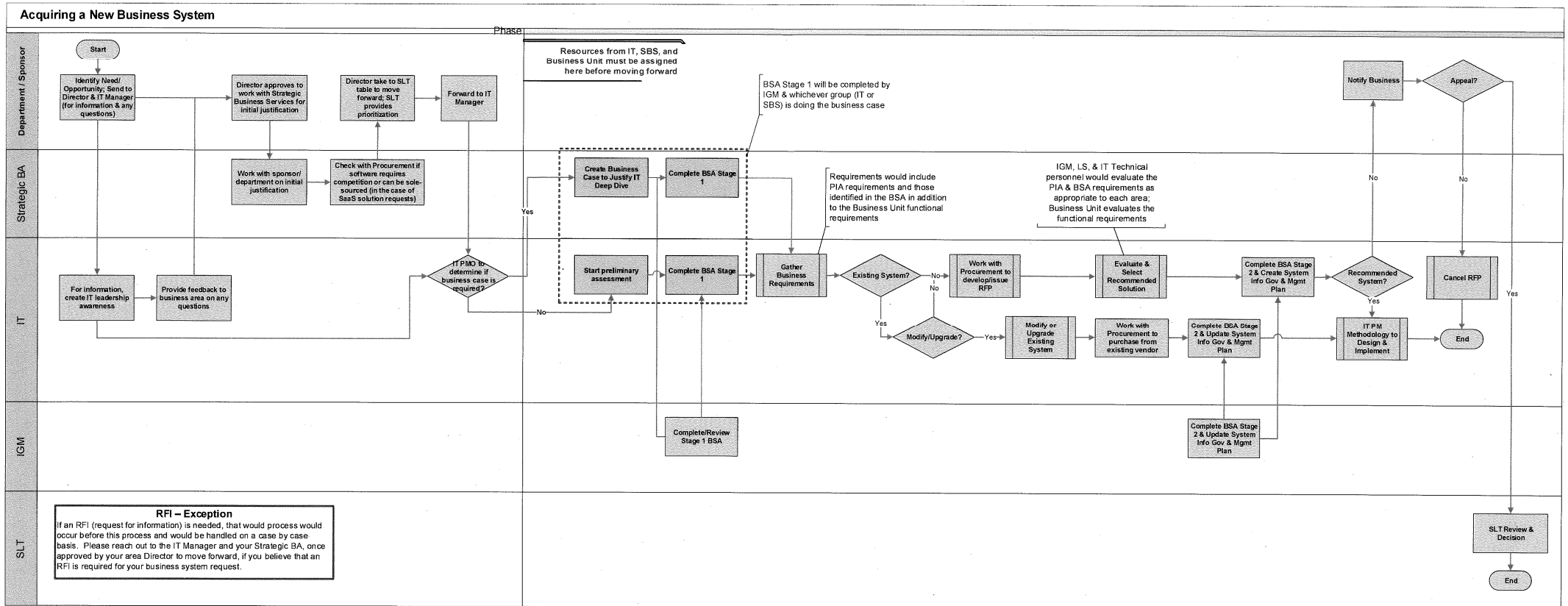
Even if the City decides notification to affected individuals is not necessary, we still need to consider whether the following should be informed of the breach:

- **RCMP** if theft or another crime is suspected;
- **Insurers or others** if required by contractual obligations;
- **Professional or other regulatory bodies** if professional or regulatory standards require notification to these bodies; and
- **Office of the Information and Privacy Commissioner.** Consider the following in determining whether to report a breach to the OIPC:
 - the sensitivity of the personal information;
 - whether the disclosed information could be used to commit identity theft;
 - whether there is a reasonable chance of harm from the disclosure including non-pecuniary losses;
 - the number of people affected by the breach; and
 - whether the information was fully recovered without further disclosure.

Step 4: PREVENTION

Once the immediate steps are taken to mitigate the risks associated with the breach, the cause of the breach must be thoroughly investigated (this may involve an audit of both physical and technical security). The Senior Leadership Team should be briefed on all events related to the breach and next steps determined. The following items should be presented to SLT for consideration:

- evaluation of current safeguards and development or improvement of the same;
- review of internal policies on personal information and update any policies as necessary with lessons learned from investigation and breach response;
- audit of breach process/plan; and
- look at employee training program and amend as necessary.



Internal Use

2.0

Use to create different versions of the process until ready-to-use

Revision # 2 Date: August, 2018 Approved by:

System Name: Name here
 Assessor Name: Name here
 Assessment Date: Date here

Stage 1: Business Systems Assessment - Risk Assessment

The Risk Assessment is the first stage of the Business Systems Assessment used by the City of Airdrie to evaluate what information will be created, managed and stored in the business system and the associated risk and value of that information. The Risk Assessment is then used to determine next steps regarding the management of the information.

Phase 1: Risk assessment checklist				
No.	Question	Explanation	Response (Y/N)	Response Details
1	What is the purpose or objective of the system?	Describe what the system will do or business process it will address.	N/A	
2	What information is stored in the system?	Include whether documents will be stored in the system or database.	N/A	
3	Is the information personal as defined in the FOIP Act or confidential or restricted as defined in the City of Airdrie's Information Security Classification Standard?	<p>Personal information includes any identifiable information about an individual (name, account number, image).</p> <p>Confidential information includes information such as personnel information, in camera minutes, contracts/agreements etc.</p> <p>Business information of a third party including trade secrets, technical information, scientific or financial information.</p> <p>If Yes for any of the information types listed, an impact assessment must be completed (see 1.6 of PIA). Contact Legislative Services.</p> <p>If No go to Q4 below</p>		
4	Does or will the system hold unique information?	<p>Is the information contained in this system duplicated in another system?</p> <p>A decision has to be made to determine if the information contained in this system is unique</p>		

System Name: Name here
 Assessor Name: Name here
 Assessment Date: Date here

Stage 2: Assessment of Information Governance and Management Functionality

Based on the answers in Stage 1, this additional assessment is required against one (or more) of four additional modules. As in Stage 1, respond to all questions in the appropriate module by providing a 'Yes' or 'No' response.

A 'Yes' response means functionality exists. No further action is required. Add a review date and document the assessment outcomes and other relevant information in Stage 3: System Information Governance and Management Plan.

A 'No' response to each question will mean that this specific functionality is not met. Where a gap (a No response) exists it is necessary to identify how the functionality will be achieved. If it is believed the gap is acceptable or necessary (e.g., a cost effective mitigation is not available), approval to acquire or use the system is required from the Information Governance and Management Steering Committee, and if required, the Senior Leadership Team. All options and decisions should be captured in Stage 3, the System Information Governance and Management Plan.

Module 1: Information is Trusted				
Question	Considerations	Met? Y/N	For 'No' responses, how will this functionality be achieved?	Date Assessed
1. Can the information be proven to be authentic?	Ability to demonstrate: <ul style="list-style-type: none"> who created it when it was created who modified it when it was modified electronic signatures (if to be used) are unique, identify the individual using the process and can be linked with an electronic document to determine if modified after the document was signed electronic documents requiring long term (20 + years) are in PFD/A format to prevent obsolescence 			
2. Does the system meet the remainder of the minimum metadata standard?	All business systems procured by the City of Airdrie after October 31, 2017, will meet minimum metadata standards.			
3. Can unauthorized changes to the information be identified or prevented?	Do the following exist: <ul style="list-style-type: none"> human-readable audit logs showing changes to content all relevant actions captured in an audit trail 			

System Name: Name here
 Assessor Name: Name here
 Assessment Date: Date here

Module 2: Disposal is Accountable				
Question	Considerations	Met? Y/N	For 'No' responses, how will this functionality be achieved?	Date Reviewed
1. Where the system contains information that has a retention period (disposal classification) less than permanent, can the system manage the disposal of information based on the applicable retention period?	Can the system accommodate destroying information based on the applicable retention period (e.g. invoices vs contracts)?			
2. Is the system able to prevent information modification or destruction in the event of a disposal freeze/hold?	What are the risks if legal hold can't be applied?			
3. Does the system have appropriate information to demonstrate accountability needs?	<p>Following destruction of information, the system should maintain a record of what has been destroyed in case it is needed to defend the destruction if challenged.</p> <p>Consider the risks if:</p> <ul style="list-style-type: none"> do not know what has been destroyed cannot prove whether or not specific information existed at a particular date cannot show under what authority and with what approval the information was destroyed 			
4. Can destruction be conducted securely and in line with destruction process and any other relevant policies/standards for destruction?	See <u>Disposition of Information Process</u> for secure disposal of electronic information			

System Name: Name here
 Assessor Name: Name here
 Assessment Date: Date here

Module 3: Export/import				
Question	Considerations	Met? Y/N	For 'No' responses, how will this functionality be achieved?	Date Reviewed
1. Can the system accommodate for the export of all information in a usable format?	Consider the risks if: <ul style="list-style-type: none"> the export, import or migration does not include all metadata required you are unable to access or use the exported, imported or migrated information You are unable to determine if all records were complete/unaltered in the course of transmission or storage 			
2. If applicable, does the system accommodate for the import of records into the system?	Consider the risks if: <ul style="list-style-type: none"> the system will need to support import if it is likely to replace an existing system and will be required to import records from it the system is limited in the format or types of information that can be imported metadata that is required cannot be imported as required 			

Module 4: Reporting				
Question	Considerations	Met? Y/N	For 'No' responses, how will this functionality be achieved?	Date Reviewed
1. Can or will the system generate reports relevant to Information Governance and Management processes?	Accurate and efficient reporting is essential to accountable information governance and management. Reports typically required would include: <ul style="list-style-type: none"> # of records due for destruction on a specific date # of records scheduled for disposition on a specific date or under a specific disposal class 			
2. Can or will the system create automatic alerts in response to specific triggers?	Alerts when specific information is due for destruction would be helpful: <ul style="list-style-type: none"> if you are implementing automated disposal 			

System Name: Name here
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Assessment Date: Date here



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		<p>and the only version which cannot be sourced elsewhere.</p> <p>Examples where the information is <i>not</i> unique:</p> <ul style="list-style-type: none"> information is created and stored on a network drive or in the SharePoint and saved in this system or linked to this system any system where information is routinely exported and managed in another system, for example Outlook emails that are saved to SharePoint. <p>If Yes go to Q6 below If No go to Q5 below</p>		
No.	Question	Explanation	Response (Y/N)	Response Details
5	<p>Is or will the information be the authoritative source of truth or relied on to create an authoritative record?</p> <p>If not, does the system feed into a system that is an authoritative source of information?</p>	<p>The agreed upon source of information to be shared within your department or the organization that is deemed reliable and trustworthy.</p> <p>Authenticity and integrity of a document and the process for signing it electronically can be proven and used to determine any modifications after the electronic signature was incorporated in, attached to, or associated with the electronic document</p> <p>An example of a system that manages the authoritative source of truth:</p> <ul style="list-style-type: none"> Avanti (Employee Record) GIS (Addressing) <p>If Yes go to Q6</p> <p>If No, document findings in Stage 3: System Information and Governance Management Plan.</p>		
No.	Question	Explanation	Response (Y/N)	Response Details
6	Is the risk or value of the	The organization may have to		

System Name: Name here
 Assessor Name: Name here
 Assessment Date: Date here

	information high enough to warrant additional controls to ensure that it is trustworthy?	<p>demonstrate that the information/record is authentic, reliable and have integrity if the subject of</p> <ul style="list-style-type: none"> • FOIP requests • Audits • Investigations • Legal proceedings <p>Note: A yes response should also be recorded for any system that manages information identified as 'Retain as Archives' (RA) in the Retention Schedule and any systems that do not yet have a set retention period in the City's Retention Schedule.</p> <p>If Yes, complete Stage 2: Module 1: Information is trusted</p> <p>Move on to Q7</p> <p>If No go to Q8</p>		
No.	Question	Explanation	Response (Y/N)	Response Details
7	Is there a requirement to destroy information in the system before the system would be decommissioned?	<p>Is there a requirement per the City's retention schedule to g destroy information earlier than the expected life of the system?</p> <p>What information retention applies to the information in the system? (</p> <p>If the information contained in the system needs to be disposed of before the system is expected to be decommissioned, it must be either exported from the system or accountably destroyed within the system. A Yes should be recorded in this case.</p> <p>Note: A yes response should also be recorded for any systems that manage information identified as 'Retain as Archives' (RA) in the Retention Schedule and any systems that do not yet have disposal coverage in the City's Retention Schedule.</p> <p>If Yes, complete Stage 2: Module 2:</p>		

System Name: Name here
Assessor Name: Name here
Assessment Date: Date here

		Disposal is accountable		
		If No go to Q8		
No.	Question	Explanation	Response (Y/N)	Response Details
8	Does the information need to be kept or accessed beyond the expected life of the system?	<p>Will the information in the system need to be retained longer than the system will be retained?</p> <p>Two options will exist:</p> <ul style="list-style-type: none"> (a) Migrate all information to a new system (b) Migrate some information to the new system and retain the remaining information in the old system until it has met it's retention requirements. <p>Consider:</p> <ul style="list-style-type: none"> • how long the organization will maintain the old system after it is replaced • whether the information remaining in the old system would be regular use • probable costs for maintaining the system after its active business use ends (for access purposes). Software and hardware requirements to produce information that is retained in the old system. <p>Note: A yes response should also be recorded for any systems that manage information identified as 'Retain as Archives' (RA) in the Retention Schedule and any systems that do not yet have disposal coverage in the City's Retention Schedule.</p> <p>If Yes, you will need to assess functionality in Stage 2: Module 3: Export/import and Module 4: Reporting</p> <p>Document findings in the Stage 3: System Information and Governance Management Plan</p>		

System Name: Name here
Assessor Name: Name here
Assessment Date: Date here

		If No, document the outcome in Stage 3: System Information and Governance Management Plan		
--	--	---	--	--

General System Information

System name (Full product name)

System common name/abbreviation

Business owner (Business Unit/Department)

Business process(es) supported by system

What is this business system's purpose? E.g., supports Accounts Payable and Receivable; Facility bookings, Arena membership, etc.

External or internal use only? Or both?

Access controls

Can user roles be defined? What are they?

Technical Details

Application Server Version e.g. Avanti 10.2.1.80

Operating System and Version e.g. Windows Server 2012

Database Server(s) e.g. CDB01 – 10.2.1.70

Referring Server e.g. MyNet/INET06 10.2.1.150

Age of system/date acquired

Upgrade due date

Server location (physical)

If cloud – note physical server and all backup server locations

Current size of data holdings/Year over year growth 2017
2018

System Administration and Support

System administrators

Application SME

Server SME

Database SME

Number of administrators

Is there a maintenance agreement with vendor?

Where is the source code kept?

Where is system documentation kept?

Where is the configuration/customization documentation kept?

Network Map

Cost of system (initial procurement)

Is there a related legacy system that has not been completely decommissioned?

If yes, is the system read only? Who still has access

to it?

Identify systems that use data from this system (and indicate what data is used)

Identify systems that this system uses data from (and indicate what data is used)

Information Governance and Management

Is information from this system the authoritative source of the information?

Yes/No

Describe

Retention specified?

What retention applies to the information managed in this system (using the records retention schedule)? List all codes that apply and to what information

Are there privacy considerations for this Information?

Yes/No

Include link to PIA

Include link to PIB

Is any information in the system subject to archival requirements (historical preservation purposes)?

Yes/No

What information?

What information security classification(s) should be applied to the information or sets of information?

If more than one applies, describe

Public/Internal/Confidential/Restricted

What information security handling processes are to be applied to the information based on the information security classification applied? Refer to the Information Security Handling Process.

Indicate below all methods that apply (delete ones that will not be used and elaborate where additional handling processes will be used other than what is listed below).

Access Methods:

Public:

- Access is open to the public and all employees, contractors, sub-contractors and agents
- Can be published if it is of value/interest to the public by authorized publisher

Internal Use:

- Access to authorized employees, contractors, agents for business related purposes
- Periodic audits to show protection is occurring will occur

Confidential,

- Access limited to individuals in specific position, function, group or role
- Log of access/actions will occur (specify what will be captured)
- Periodic audits of adequate protection will occur (specify frequency and who will be

conducting audits)

Restricted:

- Access limited to named individuals or specific position
- All access or actions are logged and subject to validation processes as appropriate (describe processes to be used)

Labelling Methods:

Public:

- No labels will be used

Internal Use:

- Security classification will be captured in electronic document metadata
- Security classification will be visible in footer of all pages of electronic documents

Confidential:

- Identify security classification in document metadata according to Minimum Metadata Standard
- Information Security Classification will be visible in footer of all pages of electronic documents
- The subject line of emails will contain "Confidential" as part of the subject line

Restricted:

- Identify security classification in document metadata
- Information security classification will be visible in footer of all pages of electronic documents
- Subject line of emails will contain "Restricted" as part of the subject line

Storage Methods:

Public:

- No special storage requirements

Internal Use:

- All media under physical and/or logical access control e.g. limited system administration access, monitored connections to networks, system files and data) – provide details

Confidential:

- All media under physical and/or logical access control of confidential zone (e.g. authorized access and authenticated access – provide details

Restricted:

- All media under physical and/or logical access control of restricted zone (e.g. single or double authentication, encrypted data, audit and monitoring) – provide details

Transmission Methods:

Public:

- No special procedures are to be used

Internal Use:

- Information sent in such a way to prevent interception, modification, or unauthorized receipt en route or at destination (e.g. encryption used).

Confidential:

- Information sent in such a way to prevent interception, modification, or unauthorized receipt en route or at destination (e.g. encryption used)
- When sent via email subject line contains "Confidential" as part of subject line
- Audit trail of all access – describe

Restricted:

- Information sent in such a way to prevent interception, modification, or unauthorized receipt en route or at destination (e.g. encryption used)
- When transmitting Restricted information externally the file must be password protected
- Audit trail of access (includes who viewed the information in addition to who created, or modified and when).

Assessment Information

Author name (ASA or business unit contact if completing the assessment or BSART)

Business area contact name

Assessment outcomes

- Provide details on outcomes of Stage 1: Risk assessment
- Provide details of risks/gaps identified in Stage 2: Assessment of information management functionality
- Provide where appropriate also details of Stage 3: Implementing solutions

e.g. Stage 1 completed (date) – Information of sufficient risk to warrant completion of Stage 2 BSA

e.g. Stage 2 completed (date) – no gaps or issues exist or Gaps or Issues exits with mitigations identified

Date completed by assessor

Date Reviewed by BSART

IGMSC Approval:

☐ Y

☐ N

Date:

Senior Leadership Approval, if required:

☐ Y

☐ N

Date:

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2017
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Public:

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- Audit trail of access (includes who viewed the information in addition to who created, or modified and when).

Assessment Information

Author name (ASA or business unit contact if completing the assessment or BSART)

Business area contact name

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- Provide details on outcomes of Stage 1: Risk assessment
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e.g. Stage 2 completed (date) – no gaps or issues exist or Gaps or Issues exits with mitigations identified

Date completed by assessor

Date Reviewed by BSART

IGMSC Approval:

- ☐ Y
☐ N

Date:

Senior Leadership Approval, if required:

- ☐ Y
☐ N

Date:

BYLAW NO. B-11/2017

OFFICE CONSOLIDATION

Consolidated November 6, 2018



Sharon Pollyck, City Clerk

Of a Bylaw Totalling
Five (5) pages.

BYLAW NO. B-11/2017
OF THE CITY OF AIRDRIE
IN THE PROVINCE OF ALBERTA

Being a Corporate Records and Information Management retention and disposition bylaw.

WHEREAS under the authority of and subject to the provisions of the *Municipal Government Act*, Revised Statutes of Alberta, 2000, Chapter M-26 and amendments thereto (hereinafter referred to as the "MGA"), Council may pass a bylaw respecting the retention and destruction of records and documents of the municipality; and

WHEREAS under the authority of and subject to the provisions of the *Freedom of Information and Protection of Privacy Act*, Revised Statutes of Alberta, 2000, Chapter F-25, and amendments thereto (hereinafter referred to as "FOIP"), the municipality is to allow any person a right of access to the records in the custody and control of the municipality and is to control the manner in which the municipality may collect, use and disclose personal information from individuals, and

WHEREAS under the authority of and subject to the provisions of the *Electronic Transactions Act*, Revised Statutes of Alberta, 2000, Chapter E-5.5, and amendments thereto, the municipality has the authority to create, record, transmit, or store information in digital form or any other intangible form by electronic, magnetic, or optical means, or any other means that have similar capabilities for creation, recording, transmission or storage

WHEREAS Council has enacted Bylaw No. 32/99, establishing a retention and disposition bylaw; and

WHEREAS Council deems it advisable to repeal and replace Bylaw No. 32/99;

NOW THEREFORE the Municipal Council of the City of Airdrie in Council duly assembled enacts as follows:

1. SHORT TITLE

This Bylaw is called the "*Records Retention and Disposition Bylaw*."

2. DEFINITIONS

- a. "City" means the corporation of the City of Airdrie.
- b. "City Department" means a department of the City.
- c. "City Manager" means the Chief Administrative Officer or his designate.
- d. "Confidential" means any record that contains personal information about individuals; third-party, commercial, financial, scientific or technical information supplied either explicitly or implicitly in confidence; or any other information protected under the FOIP.
- e. "Corporate Records" means all records of every City department, board, commission and committee.

- f. "Disposition" means the disposal of records via destruction or transfer of records of enduring value to archives.
- g. "Record" means information in any recorded form that is in the custody and control of the City, which includes but is not limited to documents, hand written notes, draft documents, voice mail, vouchers, drawings, letters, papers, e-mail, books, maps, photographs, calendars and post-it notes.
- h. "Retention Period" means the total length of time a record must be kept before final disposition is implemented.
- i. "Retention Schedule" means the timetable that identifies the retention period during which a record must be retained before disposition.
- j. "Transitory Record" means records in any media that have only temporary usefulness, are not part of an administrative or operational record series, are not regularly filed in a records information system, and are required only for a limited period of time for the completion of a routine action or the preparation of records, which include but are not limited to temporary information, duplicate documents, draft documents, publications, advertising material and blank information media.

3. GENERAL

It shall be the responsibility of the City Manager to provide for the adequate storage and security of all City of Airdrie records.

4. DISPOSITION OR DESTRUCTION OF RECORDS

- a. All transitory records, which do not contain confidential information, shall be disposed of at any time by City employees when they no longer serve any valid purpose.
- b. All transitory records containing potentially confidential information shall be disposed of in a secure manner at any time when they no longer serve any valid purpose.
- c. All records, excluding transitory records of the City, shall be destroyed in accordance with the retention schedule (**Deleted**).
- d. The City Manager may authorize the destruction of the original copies of records prior to the time outlined in the retention schedule if those originals have been converted to electronic format that will enable copies of the originals to be made.
- e. Upon the City Manager being satisfied that the relevant retention period established by this Bylaw has expired and that no reason exists for further retention of a given class of records or specific records, the City Manager may then order the records to be disposed of.
- f. When records have been disposed of under this Bylaw, with the exception of transitory records, the City Manager shall certify same in writing. Such certification shall refer to the retention schedule and shall identify the records disposed of.
- g. The City Manager shall keep an index of all records that have been disposed of.

Bylaw No. B-14/2018

- h. Where records are disposed of under this Bylaw, the proper and complete disposition thereof is the responsibility of the City Manager.
- i. Disposition of all records, except transitory records, shall be carried out in the presence of a witness. The person disposing of the records shall provide a Certificate of Destruction attesting to the time and location of the disposition of the records together with a list of the records disposed of and also the names of the persons who witnessed the disposition. The statement of disposition shall be permanently filed.
- j. Election material that has been locked in ballot boxes may be destroyed in accordance with the provisions of the *Local Authorities Election Act*, Revised Statutes of Alberta, 2000, Chapter L-21 and amendments thereto.

5. DISCRETION

The City Manager shall have the discretion to retain records longer than the period provided for in the retention schedule when the City Manager has:

- a. received an indication that there is or may be any litigation involving any said records;
- b. approved a Department request to keep any said records for a business purpose; or
- c. Approved a Department request to keep any said records for historical purposes.

Such decisions to retain records longer than the period provided for herein shall be recorded in the records management system as an information hold.

6. RETENTION AUDIT

The City Manager shall ensure that the retention schedule is adhered to and that annual audits of the records be conducted to ensure compliance with this Bylaw.

[Deleted]

Bylaw No. B-14/2018

7. REPEAL

Bylaw No. 32/99, including any and all amendments, is hereby repealed in its entirety.

READ a first time this 18th day of April, 2017.

READ a second time this 18th day of April, 2017.

READ a third time this 18th day of April, 2017.

EXECUTED this 19th day of April, 2017.

"P. Brown"

MAYOR

"S. Pollyck"

CITY CLERK

Bylaw No. B-11/2017

3

[Deleted]

[Deleted]

Bylaw No. B-14/2018

Bylaw No. B-11/2017

4

Retention Schedule Manager

Current Schedule Editable

Filters: ☐ Record Types ☐ User View ☐ Legislative Services

Customize Columns

Code	Category	Name	Description	Trigger Event	Selected Retention	Business Unit
HUM-100	Human Resources	OHS Training and Testing	Records related directly to individual health and safety training and testing including medical test information, personnel health programs, requests for medical records, check-ups, and authorization of release of medical information. Also includes programs and assessments related to disability management and wellness exams.	CVE	10	Health, Safety and Security

Update View Options

View Updated Legal Authority Assignments

Get Updated Legal Authority

Legal Authority for HUM-100

Customize Columns

Legal Authority Text

Citation Code	Legal Citation	Country	State	Keywords	Trigger	Minimum Requirements	Maximum Permitted
25330	Limitations Act Chapter L-12.3 (1) (a)	Canada	Alberta	limitation of actions/ general limitations		0	0
6238	Regulations Amending the Canada, Occupational Health and Safety Regulations 19.6	Canada	National	safety training		2	0
25331	Limitations Act Chapter L-12.3 (1) (b) (1)	Canada	Alberta	limitation of actions/ general limitations		0	0
6239	Canada Occupational Health and Safety Regulations 17.8 (2)	Canada	National	safety training		2	0
25333	Limitations Act Chapter L-12.3 (1) (b) (2)	Canada	Alberta	right of contribution		0	0
32944	ALBERTA REGULATION 195/2017 Municipal Government Act SUBDIVISION AND DEVELOPMENT APPEAL BOARD REGULATION 2	Canada	Alberta	subdivision and development appeal board/ clerks/ refresher training program		0	0
33166	Occupational Health and Safety Code 2009 Order, Alta Reg 87/2009 223 (2) (f)	Canada	Alberta	worker/ audiometric tests		10	0
25332	Limitations Act Chapter L-12.3 (1.1) (a)	Canada	Alberta	right of contribution		0	0
32821	Alberta Municipal Affairs: Retention and Scheduling of Municipal Records [100]	Canada	Alberta	reports/ accidents/ accident statistics		0	0
32836	Alberta Municipal Affairs: Retention and Scheduling of Municipal Records [115]	Canada	Alberta	training and development files		0	0
32946	MATTERS RELATING TO ASSESSMENT COMPLAINTS REGULATION, 2018 Alberta Regulation 201/2017 53	Canada	Alberta	complaints/ clerks/ board members/ training		0	0

Information Governance and Management

Retention Schedule Change Process



Purpose

The City of Airdrie Retention Schedule is a living document. Changes in legislation, business need, or historical significance may necessitate changes to the Retention Schedule. The following outlines the process to be followed to make changes to the Retention Schedule.

PROCESS AND RESPONSIBILITIES:

General Administration

- The Retention Schedule will undergo a complete review of citations every 4 years. This may include the use of external contracted services, including outside legal review.
- The Information Governance and Management (IGM) Team will be responsible for keeping scope notes (descriptions of what is included in a particular records series) up to date.
- Retention periods will not be specified in any City policies, standards, process, procedures or guidelines. They may refer to the Retention Schedule as the authoritative source for retention periods.

Business Unit Requests

If a business unit becomes aware of a change in business that would necessitate a change to the Retention Schedule within the four-year review cycle, a formal request will be made to make the appropriate changes. Requests to add new series or make retention periods longer will be considered through the following process:

- Business unit will submit a request for change to the IGM team. Requests for changes are to be submitted by the Team Leader by email and will include:
 - Name of business unit making the request
 - The name of the records series to be changed or added
 - Justification for the change or addition
 - If legislative, citation to be provided if known (e.g., Act or Legislation)
 - If business need, written explanation to be provided
 - If historical significance, written explanation to be provided
 - Business Unit Team Leader and Manager/Director approval
 - IGM Team Leader approval
- The IGM team will review the request to determine if further consultation with the business unit is required. Some retention periods affect multiple business units. Consultation will include all affected stakeholders and will aim to come to a consensus on the required retention period, although the final decision remains with the IGM Team Leader.
- If the change is approved by the IGM Team Leader, the Retention Schedule will be updated. IGM will communicate the approved change back to affected business units.

Information Governance and Management

Retention Schedule Change Process



Related Standards or Processes

- This process shall not supersede any applicable legislation, bylaws and regulations, including Bylaw No. B-14/2018 and the Information Governance and Management Policy.

EMPLOYEE USER FORM

The User Request Application form has been updated in order to keep up with emerging web technologies. Please note that the process of filling out this form has not changed. Please contact Service Desk if you have any questions or concerns.

User form: **New** ▼

Note: Please be sure to fill out ALL fields. If you require assistance you can call the SERVICE DESK at ext. 6551.

NEW USER INFORMATION

First name: Last name:
Position: Start date:
Status:

DEPARTMENT INFORMATION

Department: Facility:

NETWORK INFORMATION

Does the user require computer access? ☐ Yes ☐ No

TRAINING INFORMATION

If Network access is required, as is IT Training, Please give at least one week notice before training. Training Date:

SECURITY INFORMATION

Please choose the areas where this new user will require security access.

- ☐ 15 East Lake Hill
- ☐ 2 Highland Park
- ☐ 310 ELS
- ☐ AES East/West
- ☐ APD Chinook Winds
- ☐ APD Kings Heights
- ☐ APD Veterans
- ☐ Chinook Winds Parks Building
- ☐ City Hall Basic
- ☐ City Hall External
- ☐ Eastside Recycling Depot (21 East Lake Hill)
- ☐ Genesis Aquatics
- ☐ Genesis CSR
- ☐ Genesis Weight Room
- ☐ PW / Parks Basic (25 East Lake Hill)
- ☐ Remove All

COMPUTER INFORMATION

Workstation ID:

SOFTWARE INFORMATION

Please choose the software applications below that will be required for this role.

- ☐ Agenda.NET/Protime
- ☐ Camerlot
- ☐ CityView
- ☐ Clean
- ☐ Dynamics
- ☐ EScribe
- ☐ FDM
- ☐ Maintenance Connection
- ☐ Other (add in comments below)

PHONE INFORMATION

Is a new phone required? ☐ Yes ☐ No

Other equipment required:

☐ PCard ☐ Smartphone

General information (other comments):

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User form: View

Note: Please be sure to fill out ALL fields. If you require assistance you can call the SERVICE DESK at ext. 5555.

MOVE USER INFORMATION

First name: Last name: Effective date:

Prev. position: New position:

Prev. status: Select status New status: Select status

DEPARTMENT INFORMATION

Previous: Select department New: Select department

NETWORK INFORMATION (IF NO CHANGES LEAVE BLANK)

Folder access - If changed

Remove:

folders:

Add folders:

NEW SECURITY INFORMATION (IF NO CHANGES LEAVE BLANK)

Please choose the areas where this existing user will require additional security access.

- ☐ 1st East Lake Hill
- ☐ 2nd Highland Park
- ☐ 3rd ELS
- ☐ ABS East/West
- ☐ APD Chinook Winds
- ☐ APD Kings Heights
- ☐ APD Veterans
- ☐ Chinook Winds Parks Building
- ☐ City Hall Basic
- ☐ City Hall External
- ☐ Eastside Recycle Depot (2nd East Lake Hill)
- ☐ Genesis Aquatics
- ☐ Genesis CSR
- ☐ Genesis Weight Room
- ☐ PAV Parks Basic (2nd East Lake Hill)
- ☐ Remove All

COMPUTER INFORMATION

Prev workstation ID: New workstation ID:

NEW SOFTWARE INFORMATION

Please choose the additional software applications below that will be required for this role.

- ☐ Agenda.NET, Preview
- ☐ Camelot
- ☐ CityView
- ☐ Class
- ☐ Dynamics
- ☐ Escribe
- ☐ FDM
- ☐ Maintenance Connection
- ☐ Other (add in comments below)

PHONE INFORMATION

Is a new phone required? ☐ Yes ☐ No

Other equipment required:

☐ PCard ☐ Smartphone

General information (other comments):

Note: Please confirm that you have filled out ALL of the fields correctly then click "Send Move User Request".

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The User Request Application form has been updated in order to keep up with emerging web technologies. Please note that the process of filling out this form has not changed. Please contact Service Desk if you have any questions or concerns.

User form:

Note: Please be sure to fill out ALL fields. If you require assistance you can call the SERVICE DESK at ext. 8861

REMOVE USER INFORMATION

First name: Last name:

Position: Removal date:

Current status:

DEPARTMENT INFORMATION (TO BE REMOVED FROM)

Department:

NETWORK INFORMATION

Folder access to remove: Responsible for user's emails:

SECURITY INFORMATION (TO BE REMOVED)

☒ Remove all

COMPUTER INFORMATION

Workstation Id:

PHONE INFORMATION

Other phone equipment to be returned:

☐ PCard ☐ Smartphone

General information (other comments):

Note: Please confirm that you have filled out ALL of the fields correctly then click "Send Remove User Request".

[Send Remove User Request](#)



Database Access Request Form

All database access must be approved by the City Clerks Office.

Please contact the IT department first, to ensure the database owner is informed of the permissions being given. This applies to databases which are NOT owned by the department requesting the access.

Complete this form and have it authorized by the City Clerks office and give a copy of the signed document to the IT department to have access rights set up.

Requestor:		
	First Name	Last Name
Database Description:		
Database Location (path):	O:\	
Database File Name:		
Type of Access:	<input type="checkbox"/> Full Access <input type="checkbox"/> Read Only Access <input type="checkbox"/> Partial Access	
Reason For Access:		

I _____, hereby authorize _____ to have access to the aforementioned database.

Team Leader Authorized Signature

Dated: _____
dd/mm/yyyy

City Clerks Authorized Signature

Dated: _____
dd/mm/yyyy

Access Request/Change Form

“Dynamics – Diamond Municipal Solutions”

USER INFORMATION		ACCESS INFORMATION	
Last Name		New User / Change	
First Name		Date Requested	
Department		Effective Date	
Position / Role		End Date (if applicable)	

ACCESS INFORMATION											
For each of the Modules listed below, please select the level of Permission and the Companies for which access is being granted.											
Module	PERMISSION						COMPANIES				
	None	Inquiry	Transactions	Cards	Reports & SMART Lists	Setup	AHL	CITY	LIB	MAIN	TEST
Financial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sales (AR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accounts Payable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchase Orders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed Assets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cash Receipting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property Taxation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility Billing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Business Licensing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dog Licensing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ADMINISTRATIVE FUNCTIONS							
For each of the Functions listed below, please select the level of Permission and the Companies for which access is being granted.							
Function	PERMISSION		COMPANIES				
	None	Full	AHL	CITY	LIB	MAIN	TEST
Create/Modify User Security	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Create/Modify Companies	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SQL Functions	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Modify Posting Setup	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Modify User Preferences	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Create/Modify Report Layout	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Modify Forms	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Import/Export Report Packages	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integration Manager	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SPECIAL INSTRUCTIONS
Please describe any access scenario that cannot be communicated through the above matrix.

AUTHORIZATION		
The undersigned authorize the aforementioned User to have access to Dynamics-Diamond, as defined on this form.		
NAME	SIGNATURE	DATE
User's Team Leader (Type Name):		
Finance Approval (Type Name):		
System Administrator (Type Name):		

SMART Cities Challenge: PIPEDA Self-Assessment

The Smart Cities Challenge Management Team is comprised of members of the City of Airdrie and Airdrie and Area Health Benefits Cooperative and will be governed by way of a formalized Partnership Agreement. The Partnership Agreement will state that any work done as a part of the Smart Cities Challenge will comply with PIPEDA and the *Freedom of Information and Protection of Privacy Act* of Alberta (FOIP).

The City Manager's Directorate at the City of Airdrie is comprised of the Mayor's Office, the City Manager's Office, Legislative Services, Information Governance and Management, and Corporate Communications. All City staff within the Mayor's Office, the City Manager's Office, Legislative Services and Information Governance and Management are required to complete the instructor led 3-day FOIP training course offered by Service Alberta. Further, some members of the Information Technology team have also completed the instructor-led 3-day FOIP training course offered by Service Alberta. Currently, one FOIP Coordinator is registered and taking the University of Alberta's *Information Access and Protection of Privacy Certificate* (IAPP) and will be granted the *CIAPP Certified* designation upon completion of the program and application to the Canadian Institute of Access and Privacy Professionals (CIAPP).

The governance structure for FOIP at the City of Airdrie is as follows:

FOIP Head	<ul style="list-style-type: none">• Accountable for program oversight and governance
FOIP Team Lead	<ul style="list-style-type: none">• Accountable for the program's success, PIA's, FOIP requests/investigations
FOIP Coordinator	<ul style="list-style-type: none">• Accountable for education/training, complex PIA's, FOIP requests and day-to-day operations/inquiries
FOIP Officers (2)	<ul style="list-style-type: none">• Accountable for FOIP statements, PIB's, PIA's and day-to-day operations/inquiries including disclosure of information under other legislation

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		

Compliance Assessment Guide

Checklist for Principle 1 – Accountability

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
<p>You have reviewed your privacy policies and are satisfied that they are complete and easy to understand.</p>		X			<p>CofA</p> <ul style="list-style-type: none"> Organizational commitment is present with senior management support, Privacy Officer and Office are in place. Bylaw is in place for FOIP Head. Personal Information Inventory/bank is complete and updated regularly. Risk Assessment Tools in terms of PIA's and Business System Assessments 	<p>No official Privacy Policy has been adopted by either party.</p> <p>CofA</p> <ul style="list-style-type: none"> Formal policies require development. BSA's have been completed on all new technology acquisitions since mid-2018. Critical existing technology is currently under review with all existing technology to be reviewed by Q4 2020. Work is required in terms of ongoing assessment and revision.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
					<p>(BSA's) are formalized and mandatory for new and existing technology.</p> <ul style="list-style-type: none"> • Training and education for City staff is in place and mandatory. Specific topic information is provided to business units upon request and to Team Leaders at the FOIP Head's discretion. • Breach and incident management response protocols have been drafted and will be presented to senior management in 2019. • Service provider management is accomplished contractually. • External communication occurs and the City is diligent in the use of FOIP statements. • FOIP process is formalized and well understood within Legislative Services. FOIP process is taught to and understood by City employees. Legislative 	

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
					Services walks City staff through the process upon receipt of a FOIP request or OIPC inquiry.	
You have clearly delineated who, within your organization, is responsible for privacy governance and management.	X				CofA <ul style="list-style-type: none"> Clearly defined privacy governance and management. Information posted to City's intranet. FOIP Head, Coordinator and Privacy Officers are in place. Privacy is overseen by the Legislative Services unit. 	
You have privacy policies and practices that apply to the personal information of your employees as well as that of your customers.		X			CofA <ul style="list-style-type: none"> Practices are in place but not all are formalized in documentation. Privacy is addressed within the City's formalized Corporate Information Governance Framework. 	
Your privacy framework clearly articulates that you will be responsible for all personal information you hold or control, including information which has been transferred to a third party	X				CofA <ul style="list-style-type: none"> The City's formalized Corporate Information Governance Framework together with training and education articulate responsibility. 	Specific training on data ownership, contractors and the concepts of custody and control has been presented to specific business units, Team Leaders, Managers and Directors.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
for processing.						
You have appointed at least one person to be responsible for the organization's overall compliance with PIPEDA.	X				CofA <ul style="list-style-type: none"> Airdrie has designated a FOIP Head as required under FOIP by bylaw. 	
You have directed staff through policy, procedure or training to provide the name, address and phone number of the PIPEDA contact person to individuals when requested.	X				CofA <ul style="list-style-type: none"> City staff are provided with information on the FOIP Head during training. FOIP statements are used when personal information is being collected. FOIP statements articulate the title, address and phone number of the contact person. 	FOIP online training through Service Alberta advises employees to always consult with the FOIP Coordinator when collecting personal information in order to ensure any necessary notification is utilized.
You use contractual agreements to ensure a comparable level of privacy protection is offered to personal information while it is in the custody of a third party for processing.	X				CofA <ul style="list-style-type: none"> Yes. 	CofA <ul style="list-style-type: none"> Depending on the type of information/contract, varying degrees of information about FOIP and contractor responsibility is provided.
Your privacy framework addresses the principle of "identifying purpose" regarding personal information.	X				CofA <ul style="list-style-type: none"> Yes. 	CofA <ul style="list-style-type: none"> Whenever personal information is required/requested by the City, a FOIP statement must be included within the

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
						request identifying the purpose for which the personal information is being collected.
<div> Your privacy framework addresses the principle of “consent” regarding personal information. </div>	X				CofA <ul style="list-style-type: none"> Yes. 	CofA <ul style="list-style-type: none"> Business units using personal information are well informed on the principle of consent. FOIP online training through Service Alberta identifies for employees that consent is not one of the recognized collection authorities under FOIP and that another authority must exist in order to collect personal information.
<div> Your privacy framework addresses the principle of “limiting collection” of personal information. </div>	X				CofA <ul style="list-style-type: none"> Yes. 	CofA <ul style="list-style-type: none"> Training and education reinforce the purpose of “limiting collection” of personal information to that that is required/needed for a City service or program. Personal information that falls into the category of “nice to have” is not permitted. Legislative Services’ review of FOIP statements

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
						reiterates this practice.
<div> <p>Your privacy framework addresses the principle of “limiting use, disclosure and retention” of personal information.</p> </div>	X				CofA <ul style="list-style-type: none"> Yes. 	CofA <ul style="list-style-type: none"> Training and education reinforce the purpose of “limiting use, disclosure and retention” of personal information. Business units that handle personal information on a routine basis are clear on this principle. In some instances, specific flow charts have been created to assist staff with administering this principle when dealing with the public (e.g., Building Inspections).
<div> <p>Your privacy framework addresses the principle of “accuracy” regarding personal information.</p> </div>	X				CofA <ul style="list-style-type: none"> Yes. 	CofA <ul style="list-style-type: none"> The Corporate Information Governance Framework outlines the responsibility of staff to ensure the accuracy of personal information. This corporate document is reinforced through education and training. Starting in Q1 2019 new employees learn about the Corporate Information Governance Framework and this principle during

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
						orientation.
<div> Your privacy framework addresses the principle of “safeguards” with respect to personal information. </div>	X				CofA <ul style="list-style-type: none"> Yes. 	CofA <ul style="list-style-type: none"> The Corporate Information Governance Framework outlines the “safeguards” required when handling personal information. This principle is reinforced as a part of mandatory education and training. FOIP online training through Service Alberta addresses physical, administrative and technical safeguards. Further, access to personal information is restricted through technology to staff who need access to such information in the performance of their duties.
<div> Your privacy framework addresses the principle of “openness” regarding personal information. </div>			X		CofA <ul style="list-style-type: none"> No. 	CofA <ul style="list-style-type: none"> A privacy policy is currently under development and should be in place by the end of June 2019. This work is underway with the Corporate Information Governance Framework being released in mid 2018. A number of FOIP pieces still require development.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
Your privacy framework addresses the principle of “individual access” regarding personal information.	X				CofA • Yes.	CofA • Mandatory training and education cover the principle of “individual access.” This relates not only to customers of the City but also its staff.
Your privacy framework addresses the principle of “challenging compliance” regarding personal information.		X			CofA • Yes.	CofA • Mandatory training and education address the principle of “challenging compliance.” Staff are advised that any questions regarding the handling of personal information are directed to the responsible business unit and FOIP office.
You have communicated information related to personal information handling policies, procedures and practices to staff.	X				CofA • Yes.	CofA • The City’s Corporate Information Governance Framework articulates the handling of personal information. All staff were educated on the new Framework in 2018. • City staff are required to complete mandatory online FOIP training through Service Alberta.
You have trained staff	X				CofA	CofA

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
regarding the protection of personal information by informing them of organizational privacy policies, procedures and best practices.					<ul style="list-style-type: none"> Yes. 	<ul style="list-style-type: none"> The City's Corporate Information Governance Framework articulates the handling of personal information. All staff were trained on the new Framework in 2018. The Framework is also covered as a part of orientation once the employee has been with the City for approximately one month. City staff are required to complete mandatory online FOIP training through Service Alberta. Specialized training is provided to those business units who manage personal information on a regular basis.
You have the means in place to identify which of your staff should be trained in privacy, including new staff and refresher training of existing staff.		X			CofA <ul style="list-style-type: none"> Yes. 	CofA <ul style="list-style-type: none"> All staff are required to attend mandatory online FOIP training through Service Alberta. Staff attendance is managed through the City's Human Resources system (Avanti). At this time, a formalized refresher program has not

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		

						been implemented.
You have developed documentation to explain your personal information protection policies and procedures to customers and the general public.		X			CofA <ul style="list-style-type: none"> Yes. 	CofA <ul style="list-style-type: none"> Information is available on the website. FOIP statements are used routinely. Other than information provided by the Province of Alberta, the City has not created separate documentation explaining the City's protection policies and procedures.

Supplemental Assessment for Federal Works, Undertakings or Businesses:

Checklist for Principle 2 – Identifying Purposes

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
You identify why you are collecting personal information at or before the time of collection.	X				CofA <ul style="list-style-type: none"> FOIP statements are routinely used when collecting personal information. The FOIP 	CofA <ul style="list-style-type: none"> The City is currently working to have a standardized FOIP message put onto City phones to address collection

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
					statement outlines the purpose for collection.	that occurs over the phone.
You have documented your purpose(s) for collecting personal information.	X				CofA <ul style="list-style-type: none"> FOIP statements are routinely used when collecting personal information. The FOIP statement outlines the purpose for collection. 	
You have notified clients and customers of new purposes for which you will use information if they weren't identified at the time information was collected.	X					CofA <ul style="list-style-type: none"> This is done through direct contact with the client/customer supported by a public communications strategy.
You seek the consent of clients and customers before using information for any new purpose if required.	X					CofA <ul style="list-style-type: none"> This is done through direct contact with the client/customer supported by a public communications strategy. Consent is requested. For example, when new services are added to the City's MyNet portal, the client/customer is asked to consent to the new service.
You have notified clients and customers of the purposes before using or disclosing the	X					CofA <ul style="list-style-type: none"> This is done through direct contact with the

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
information if notification at the time of collection was not practicable.						client/customer supported by a public communications strategy. <ul style="list-style-type: none"> Wherever possible, a work around is used (e.g., unaddressed mail notification delivered to affected homes).
You have determined the amounts and types of personal information needed to fulfill your purpose(s).	X					CofA <ul style="list-style-type: none"> This is done prior to implementing the collection through a collaborative process between the business unit and FOIP Office. The FOIP statement is developed from these discussions.
You have determined why you are collecting personal information and that the amount and types of personal information collected are reasonable in normal business circumstances.	X					CofA <ul style="list-style-type: none"> This is done prior to implementing the collection through a collaborative process between the business unit and FOIP Office. Personal information collected is kept to a bare minimum. The FOIP statement is developed from these discussions.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
<p>You have distinguished between essential information (required for primary business purposes) and non-essential information (voluntary information which facilitates use for secondary purposes).</p>	X					<p>CofA</p> <ul style="list-style-type: none"> • This is done prior to implementing the collection through a collaborative process between the business unit and FOIP Office. • Personal information collected is kept to a bare minimum. The collection of non-essential information is discouraged. • The FOIP statement is developed from these discussions.
<p>You have identified non-essential information as voluntary and have provided staff with information on how to proceed when clients and customers opt out of secondary uses.</p>	X					<p>CofA</p> <ul style="list-style-type: none"> • The collection of non-essential information is discouraged. Business units recognize any information outside of essential information is voluntary.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		

Checklist for Principle 3 – Consent

You obtain customer consent for any collection, use or disclosure of personal information.	X				CofA <ul style="list-style-type: none"> FOIP statements are routinely used when collecting personal information. Often, with City services, collection, use and disclosure are dealt with through bylaw. 	CofA <ul style="list-style-type: none"> Yes. In those instances not covered by bylaw, consent is obtained.
If you don't obtain customer consent for the collection, use and disclosure of personal information, you have determined that it is not required under s.7 of PIPEDA.	X					CofA <ul style="list-style-type: none"> The City ensures it is in compliance with its governing FOIP legislation. FOIP does not contain authority to collect personal information based on consent.
You make reasonable efforts to ensure that clients and customers are notified of the purposes for which personal information will be used or disclosed.	X					CofA <ul style="list-style-type: none"> Yes. The City ensures it is in compliance with its governing FOIP legislation.
You do not require clients and customers to consent to the collection, use or disclosure of personal	X					CofA <ul style="list-style-type: none"> Yes. The City ensures it is in compliance with its governing FOIP legislation.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
information beyond what is necessary to fulfill explicitly specified and limited purposes as a condition of supplying a product or service.						
You assess the purposes and limit the collection, use and disclosure of personal information when it is required as a condition for obtaining a product or service.	X					CofA <ul style="list-style-type: none"> • Yes. • The City ensures it is in compliance with its governing FOIP legislation.
You obtain consent through lawful and fair means.	X					CofA <ul style="list-style-type: none"> • Yes. • The City ensures it is in compliance with its governing FOIP legislation.
You allow a client or customer to withdraw consent at any time subject to legal or contractual restrictions and reasonable notice.	X					CofA <ul style="list-style-type: none"> • Yes, where possible. • The City ensures it is in compliance with its governing FOIP legislation.
You inform clients and customers of the implication of the withdrawal of consent.	X					CofA <ul style="list-style-type: none"> • Wherever possible.
You consider the sensitivity and intended use of personal	X					CofA <ul style="list-style-type: none"> • Yes.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
information, and the reasonable expectations of clients and customers in determining which form of consent (implied or expressed) you will accept for the collection, use and disclosure of personal information.						<ul style="list-style-type: none"> Wherever possible, expressed consent is obtained.

Checklist for Principle 4 – Limiting Collection

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
You limit the amount and type of personal information you collect to what is necessary for the identified purpose.	X					CofA <ul style="list-style-type: none"> Yes. This is done prior to implementing the collection through a collaborative process between the business unit and FOIP Office. The FOIP statement is developed from these discussions.
You collect information only	X					CofA <ul style="list-style-type: none"> Yes.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		

by fair and lawful means.						
You have documented the specific types of information you collect along with the purposes for collection.	X				CofA <ul style="list-style-type: none"> Personal Information Banks posted to the City's website. 	CofA <ul style="list-style-type: none"> Yes. Personal Information Banks are retained and kept up to date.
You have documented when you collect information from sources other than the individual about whom it pertains.	X					CofA <ul style="list-style-type: none"> Yes. In most instances this includes forms in use at recreation facilities and photo waivers by parents for their children. Another example would include providing designated emergency contact information.
You distinguish between mandatory and optional collection of personal information.	X					CofA <ul style="list-style-type: none"> Yes. Wherever possible, non-essential information is not collected.
You limit your collection of the SIN to legally established purposes.	X					CofA <ul style="list-style-type: none"> Yes.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		

Checklist for Principle 5 – Limiting Use, Disclosure, and Retention

You do not use or disclose information for purposes beyond those for which it was collected, except with the consent of the individual or as required by law.	X					CofA <ul style="list-style-type: none"> Yes.
You document new purposes conceived after the personal information is collected.	X					CofA <ul style="list-style-type: none"> Yes. The FOIP statement is changed to reflect the new or added purpose.
You only retain personal information as long as necessary to allow for the fulfillment of identified purposes.		X			CofA <ul style="list-style-type: none"> Corporate Information Governance Framework, which includes the Information Governance and Management Policy, Retention and Disposition Bylaw, Retention Schedule, and Process for Updating the Retention Schedule. 	CofA <ul style="list-style-type: none"> The City has a formalized retention process for physical information. The City adopted an Information Governance and Management Strategy in 2015. Resourcing was approved starting in 2017 with the City adopting a strategy to be digital by 2022. The City is moving to SharePoint as a digital repository (where possible) with Gimmal as its records management tool. Implementation will start in

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
						2019 with an anticipated completion date of 2022. As business units are onboarded, digital information will also be managed and retained in accordance with the retention schedule and no longer.
You retain personal information used to make decisions about an individual long enough for the individual to request access to it.	X				CofA <ul style="list-style-type: none"> Corporate Information Governance Framework, which includes the Information Governance and Management Policy, Retention and Disposition Bylaw, Retention Schedule, and Process for Updating the Retention Schedule. 	CofA <ul style="list-style-type: none"> Yes. The City ensures it is in compliance with its governing FOIP legislation and retention schedule. Compliance with these pieces of legislation may mean the City has disposed of personal information prior to an individual requesting access (i.e., personal information used to make a hiring decision has a retention of current plus 1 year).
Your privacy management framework governs the destruction of personal information, including the role of contractors		X			CofA <ul style="list-style-type: none"> Corporate Information Governance Framework, which includes the Information Governance and Management Policy, 	CofA <ul style="list-style-type: none"> The City's Corporate Information Governance Framework together with the City's retention schedule govern the destruction of

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
performing such services.					Retention and Disposition Bylaw, Retention Schedule, and Process for Updating the Retention Schedule.	personal information. <ul style="list-style-type: none"> The City's Corporate Information Governance Framework includes a documented legal hold process to ensure that any information subject to a FOIP request, litigation, etc. is not destroyed.

Checklist for Principle 6 – Accuracy

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
You take reasonable measures to ensure that personal information is accurate, complete and up-to-date prior to using the information to make decisions.	X					CofA <ul style="list-style-type: none"> Yes.
You only update personal information if the process is necessary to fulfill the purposes for which the information was collected.	X					CofA <ul style="list-style-type: none"> Yes. Personal information is not routinely updated. It is only updated at the request of or with the consent from the

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
						affected individual.
<p>Your privacy management framework addresses the accuracy, completeness and currency of personal information which includes a process through which individuals can challenge the accuracy of information.</p>	X					<p>CofA</p> <ul style="list-style-type: none"> • Yes. • Individuals are able to address the accuracy of their personal information with the business unit or the FOIP office. • FOIP online training through Service Alberta advises employees that only factual information can be changed, not opinions. Any questions are to be directed to FOIP staff. • As a part of the City's Corporate Information Governance Framework, a personal information standard is being developed and should be in place by June 2019.
<p>Your privacy management framework specifies when updates are appropriate based on the defined purposes and uses of the information as well as the interests of the individual.</p>			X			<p>CofA</p> <ul style="list-style-type: none"> • No formalized process is in place.
<p>You record when and where</p>		X				CofA

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
key information was collected, including dates of corrections or updates to such information.						<ul style="list-style-type: none"> • Yes. • The process is business unit dependent. • IT systems provide audit trails for digital information.
You conduct periodic spot-checks, assessments or audits of information holdings and databases to ensure that key information is accurate, complete and up-to-date.			X			CofA <ul style="list-style-type: none"> • No formalized process is in place. • Periodic spot-checks are conducted during normal business practices and interactions with clients/customers. When dealing with clients/customers, the opportunity is taken to ensure personal information is accurate, complete and up-to-date.

Checklist for Principle 7 – Safeguards

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
You have adopted physical, technical and administrative safeguards to protect	X				CofA <ul style="list-style-type: none"> • Corporate Information Governance Framework, 	CofA <ul style="list-style-type: none"> • Yes. • Mandatory education and

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
personal information against loss or theft as well as unauthorized access, disclosure, copying, use or modification.					which includes Information Security Classification and Handling.	training covers the need to safeguard personal information. <ul style="list-style-type: none"> Spot-checks and audits on physical information are not conducted. IT systems are designed and audited to control against unauthorized access.
You choose security safeguards that are commensurate with the sensitivity of the information and the means used to transmit it.		X			CofA <ul style="list-style-type: none"> Corporate Information Governance Framework, which includes Information Security Classification and Handling. 	CofA <ul style="list-style-type: none"> Yes. Mandatory education and training covers the need to choose security safeguards commensurate to the type of information. As the Corporate Information Governance Framework is new for City staff, it is in the education phase. Auditing for compliance is scheduled to commence in the latter part of 2019.
You protect all personal information regardless of the format in which it is held.	X				CofA <ul style="list-style-type: none"> Corporate Information Governance Framework, which includes Information Security Classification and Handling. 	CofA <ul style="list-style-type: none"> Yes.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
You make your employees aware of the importance of maintaining the confidentiality of personal information.					CofA <ul style="list-style-type: none"> Corporate Information Governance Framework, which includes Information Security Classification and Handling. 	CofA <ul style="list-style-type: none"> Yes Mandatory education and training on both FOIP and the Corporate Information Governance Framework address the importance of maintaining confidentiality of personal information.
You have implemented processes to prevent unauthorized access to personal information during the disposal or destruction of information.	X					CofA <ul style="list-style-type: none"> Yes. Information Governance and Management staff oversee the destruction of physical personal information as a part of the City's annual destruction. The destruction occurs on site by shredding. Digital destruction will commence in 2019 as business units are onboarded to SharePoint. Digital destruction processes will be formalized by the end of Q2 2019.
You have implemented and adhere to your various information security policies and practices.		X			CofA <ul style="list-style-type: none"> Corporate Information Governance Framework, which includes Information Security Classification and 	CofA <ul style="list-style-type: none"> Yes. Although processes have been in place, they have been formalized through the

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
					Handling.	new Corporate Information Governance Framework. <ul style="list-style-type: none"> Implementation of the formal processes are currently being implemented and are scheduled for compliance auditing in late 2019.
You have established an information security breach policy and commit to investigating the root-cause of such breaches.		X			CofA <ul style="list-style-type: none"> Corporate Information Governance Framework, which includes a draft security breach process. 	CofA <ul style="list-style-type: none"> Yes. A security breach process has been drafted and will be endorsed corporately in 2019.
You have developed and implemented policies and practices including appropriate safeguards for all uses of personal information outside the office.		X				CofA <ul style="list-style-type: none"> The City had endorsed a formalized process for remote access into the City's network, which prevents the downloading of information onto personal computers.

Checklist for Principle 8 – Openness

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
You make information regarding policies and			X			CofA <ul style="list-style-type: none"> No.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
procedures related to the management of personal information available to individuals.						<ul style="list-style-type: none"> Although there are some policies and procedures in place, they are recently endorsed corporately and have not yet been made available to the public.
You explain to customers why you collect, how you use and when you will disclose their personal information.		X			CofA <ul style="list-style-type: none"> FOIP statements. Bylaws. 	CofA <ul style="list-style-type: none"> Yes. The City routinely uses FOIP statements for the collection, use and disclosure of personal information. Often, City services and the handling of personal information therefor are captured within bylaws, which are posted publicly to the City's website.
You make information available to clients and customers regarding who within the organization can address questions or complaints regarding the handling of personal information.					CofA <ul style="list-style-type: none"> Website. 	CofA <ul style="list-style-type: none"> Yes. Although personal information is not specifically addressed, contact information for FOIP is included on the City's website.
You make the name/title and address of the person accountable for the	X					CofA <ul style="list-style-type: none"> Yes.

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		

organization's privacy policies available on request.						
You describe to your clients how they can obtain access to or correct their personal information.	X					CofA • Yes.
You provide individuals with a description of what personal information you hold and what you disclose to other organizations.	X				CofA • Personal Information Banks posted to the City's website.	CofA • Yes.

Checklist for Principle 9 – Individual Access

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
You have adopted policies and procedures for responding to requests for personal information under PIPEDA.	X				CofA • Province of Alberta, <i>FOIP Guidelines and Practices</i>	CofA • Yes • The City uses a standard process for responding to FOIP requests. • A register of requests is kept by FOIP staff to track each request (includes a file number, applicant name, date received, due date,

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
						details of request, who in the organization was asked to search for records, fees estimated/collected, date a response was provided, the response time (in days), the outcome of the request, and whether a request for review was made.
You have advised staff of the need to direct requests for access to information to the staff member responsible for processing these requests.	X				CofA <ul style="list-style-type: none"> Online FOIP training through Service Alberta 	CofA <ul style="list-style-type: none"> Yes. Mandatory education and training provide staff with the FOIP structure at the City and identifies the staff member responsible. Reception staff in all buildings are familiar with the process and have FOIP request forms available for the public.
You inform individuals of the existence, use and disclosure of their personal information on receipt of a written request.	X					CofA <ul style="list-style-type: none"> Yes. This is handled through the FOIP office within Legislative Services.
You provide individuals with access to personal information on receipt of a written request.	X				CofA <ul style="list-style-type: none"> FOIP request form. 	CofA <ul style="list-style-type: none"> Yes. Regardless of the method of the request, access to

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
						personal information is provided. Wherever possible, the FOIP office responds in a timely manner and outside the formalized FOIP process.
You limit refusal to provide access to information to exceptions described in Section 9 of PIPEDA.	X					CofA <ul style="list-style-type: none"> • Yes. • The City ensures it is in compliance with its governing FOIP legislation.
You provide an account of the uses of information on request.	X					CofA <ul style="list-style-type: none"> • Yes.
You provide an account of all third parties to whom information has been disclosed (or a listing of the types of third parties to whom such information is generally disclosed) on receipt of a request for such a list from an individual.	X					CofA <ul style="list-style-type: none"> • Yes.
You assist those individuals who indicate they need help to complete a request for information.	X					CofA <ul style="list-style-type: none"> • Yes. • The City ensures it is in compliance with its governing FOIP legislation, which requires City staff assist those individuals who

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
						<p>require assistance in completing a request for information.</p> <ul style="list-style-type: none"> These requests for assistance are directed to FOIP staff.
You respond to a request for information at minimal or no cost to the individual.	X				Costs would be inline with the Alberta FOIP schedule of cost recovery.	<p>CofA</p> <ul style="list-style-type: none"> Yes. The City ensures it is in compliance with its governing FOIP legislation and costs permitted thereunder.
You respond to a request for information in not more than 30 days unless you notify the requestor within that time period of your need to extend the time limit for response, indicate the extended time limit and inform the requester of his or her right to complain to the OPC.	X					<p>CofA</p> <ul style="list-style-type: none"> Yes. The City ensures it is in compliance with its governing FOIP legislation, which stipulates time limits for response. The City uses standard letter templates provided by Service Alberta.
You rely on time limit extensions only in cases where responding within the original 30 days would unreasonably interfere with your activities, when additional time is needed to	X					<p>CofA</p> <ul style="list-style-type: none"> Yes. The City ensures it is in compliance with its governing FOIP legislation. The requester is provided with written notification in

Statement	Assessment				Evidence	Actions/Comments
	Met	Partially Met	Not Met	Other		
conduct consultations, or when additional time is needed to convert personal information to an alternative format.						the event a time extension is required.
You provide access to information in a format which is legible and will provide an explanation of abbreviations or codes on request from an individual.	X					CofA <ul style="list-style-type: none"> • Yes. • The City ensures it is in compliance with its governing FOIP legislation.
You advise requestors of the reasons for refusal and recourse available to them when refusing to provide information.	X					CofA <ul style="list-style-type: none"> • Yes. • The City ensures it is in compliance with its governing FOIP legislation.
You allow individuals to challenge the accuracy of personal information and amend information when an individual demonstrates that information is inaccurate or incomplete.	X					CofA <ul style="list-style-type: none"> • Yes. • The City ensures it is in compliance with its governing FOIP legislation.
You forward corrected personal information to third parties who would have received the original information.	X					CofA <ul style="list-style-type: none"> • Yes.

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ATIA - 19(1)

HEALTHSMART AIRDRIE

Community Operating System (COS) Proposal

datumSURE

Phone: [REDACTED]

Email: [REDACTED]



Overview

DatumSURE is pleased to submit this proposal for services to support the City of Airdrie and the Airdrie & Area Health Cooperative (AAHC) in achieving its goals to win the \$10 Million category of the Infrastructure Canada Smart Cities Competition. This proposal provides a technology plan for the development and administration of a “Community Operating System” (COS) or “HealthSmart Hub” including; API development, management and administration, data connections, interfaces, and dashboards. For the purposes of this document we will use language that assumes that datumSURE be selected to develop and implement this solution for AAHC. We are excited to be working with the City of Airdrie and the AAHC and look forward to helping them achieve their goals to create a healthier and more connected community.

The Objective

DatumSURE’s technology plan proposal is a succinct technical strategy document covering technology, implementation, operations, support and ongoing development of the recommended solution. The proposal includes the following key elements or needs;

- Need #1: Present a plan/solution for the creation of a HealthSmart Hub (Community Operating System) – Integration Engine, Dashboards, Front door for app development and integration.
- Need #2: Visually demonstrate how the engagement, collaboration & connectivity through connected technologies will look.
 - Capacity to connect to externally managed applications, software and devices (ie. Wearables, Apps, etc.).
 - Capacity to implement (recipe book for implementation). Ability to connect and/or potentially integrate apps developed specifically for community (ie. licensed /commercial software).
 - Integrated technologies. Apps developed for any community and integrated as core components (ie. custom built, open source software).
- Need #4: Present safety & security through risk, security and privacy frameworks.
- Need #5: Present and explain the alignment and connectedness to other community initiatives (ie. MyAirdrie citizen portal, Health Park, etc.).

In addition, DatumSURE is focused on ensuring that the proposal will support the following overarching goals;

- Goal #1: That the solution can be replicated in other communities.
- Goal #2: That open source technologies are utilized whenever possible.
- Goal #3: Minimal financial strain on any municipality or it’s citizenry.
- Goal #4: A sustainable business model.

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Proposal

DatumSURE is a technology company focused on entity-centric master data integrity management and globally accepted data privacy goals and practices. Our overarching goals are to put data rights squarely into the hands of the individual, facilitate a universal view of an individual/entity, help organizations slow the rising cost and risk inherent in data management, and provide a way for data owners to legally and ethically monetize data by fixing and streamlining broken workflows. We believe these goals coupled with our technology and experience make us the perfect partner for AAHC and the development of the HealthSmart Hub.

The HealthSmart Hub will revolutionize the way Airdrie citizens and other participating entities/organizations interact, share and use their data. By providing assurance around data provenance and integrity and empowering individuals to have control of their data, we begin to reform the data landscape away from data acquisition, collection, storage, etc. toward the concept of knowledge/insight sharing. Thereby, allowing people to use their data safely to optimize their lives and communities.

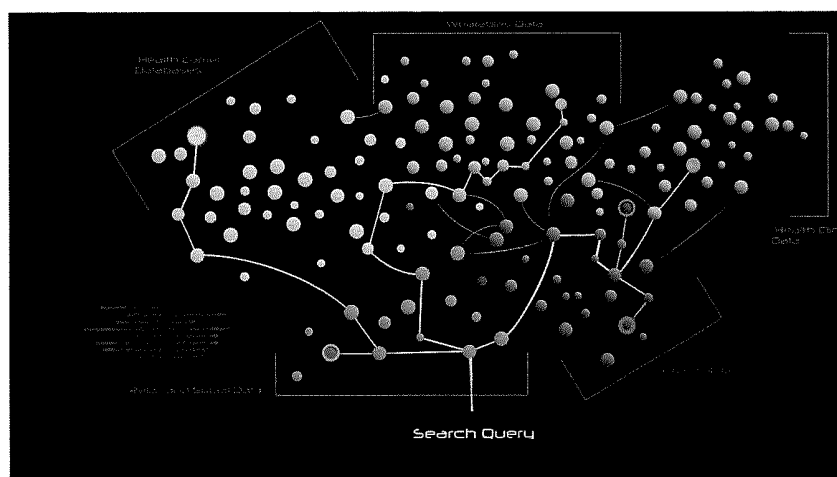
The Solution

HealthSmart Hub

The current market transfers data from source to source, multiplying the risk and cost associated with administrating, storing and securing the data. According to an Experian Data Quality study this duplication and redundancy within data rich organizations represents a hidden cost equaling more than 12% in lost revenue and will reach \$3.3T worldwide by 2020. Our solution mitigates these costs

by giving individuals, organizations and government entities applicable, appropriate and permissioned access to query data elements and sources through benchmarking, BI and visualization tools. In addition, each piece of information comes with a verified integrity and provenance report. Our goal is to help companies get "knowledge from data, not risk".

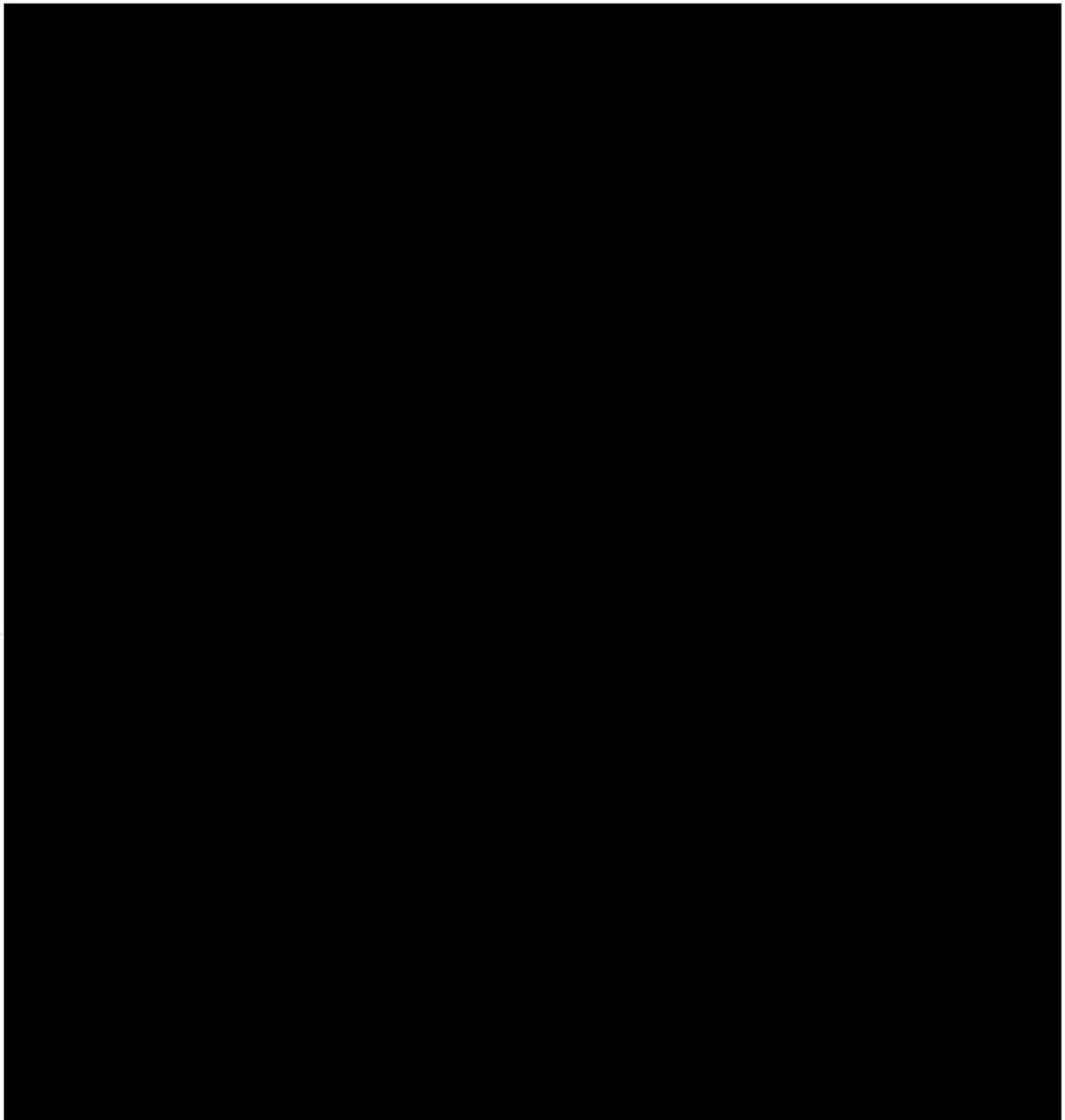
DatumSURE will use a variety of open source technology products to develop the proposed HealthSmart Hub, the COS. Essentially, we are recommending the implementation of a unique municipal focused version of our Master Data Integrity Management (MDIM) platform and tools. Our solution leverages zero-knowledge proof principals, Hyperledger blockchain



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solutions and advanced database tools to create a trustless and completely secure data management system that maps data provenance, assures data integrity and places data rights squarely in the hands of the individual (e.g. Airdrie citizens and applicable entities). This data platform ensures all data is safely and securely directed by the individual enabling them to share insights and applicable data from disparate and decentralized data sources.



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SECURITY

The primary concern of any data centric engagement is data security. Neither the HealthSmart Hub nor datumSURE will store any sensitive individual or entity data within their system (encrypted or unencrypted)

- **Data:**
 - What *DOES* the system store?
 - We store an encrypted map of entities.
 - Proprietary metadata for the purposes of monitoring the integrity and health of each data source.
 - **Data Sharing:**
 - The system allows for the sharing of data (e.g. insights, benchmarking, data transfer, etc.) as directed by the data subject (e.g. citizens) or by predefined applicable and appropriate permissible use cases (e.g. medical emergency, preauthorized access) within the confines of GDPR and municipal guidelines.
- **User Authentication & Access Controls:** There are many user authentication & access control solutions on the market. We're recommending several potential vendors offering a multi-factor authentication for integration. Our proposal includes integrating one of these solutions.
 - Potential solutions for user authentication:
 - Auth0
 - DigitalPersona
 - AuthAnvil
 - KeyCloak

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pursuant to paragraph
20(1)(b) & 20(1)(c)
of the *Access to Information Act***

**La page 186
Font l'objet d'une exception totale
conformément aux dispositions de paragraphe
20(1)(b) & 20(1)(c)
de la *loi sur l'accès à l'information***

**GOVERNANCE**

We see Datumsure as an advisor and technology partner supporting the "Smart City" governance structure.

TRAINING

DatumsURE will provide applicable and appropriate training to meet RFP requirements. In addition, we will provide consultative guidance and support to Airdrie in developing strategies for increasing community interaction with the tools and COS modules.



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20(1)(b), 20(1)(c) & 20(1)(d)
of the *Access to Information Act***

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conformément aux dispositions de paragraphe
20(1)(b), 20(1)(c) & 20(1)(d)
de la *loi sur l'accès à l'information***

Conclusion

We're excited to support the city of Airdrie and the Airdrie & Area Health Cooperative (AAHC) in this exciting project to help Airdrie become Canada's healthiest community. We believe that our technology, mission and corporate philosophy match perfectly within the scope of this project and specifically in helping Airdrie and the AAHC empower Airdrie's citizens through the creation of a "Community Operating System" (COS)/"HealthSmart Hub." We look forward to continuing to support this effort and hope you will trust us to help accomplish this goal.

If you have questions on this proposal, feel free to contact [REDACTED] datumSURE at your convenience by email at [REDACTED] or by telephone at [REDACTED]

We look forward to working with you and helping you succeed.

Thank you,

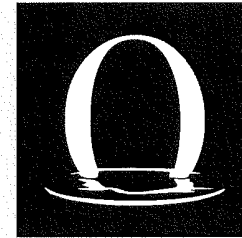
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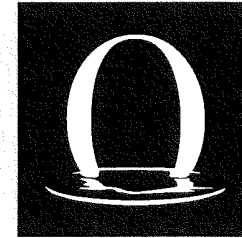


Enterprise Intelligence and Smart Cities

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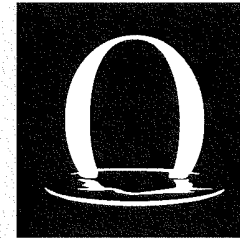


PROJECT ESTIMATE



THE PROJECT

As part of an ongoing pitch effort, the city of Airdrie (and by extension Oasis) is seeking a partner to work on a healthcare focussed, smart city initiative. The pitch itself is part of the federal government's "Smart Tech Fund" which aims to create new pockets of innovation across the country. As a city, Airdrie is poised to embrace shifting technology paradigms, marrying blockchain with healthcare to create transparency, empower patients (and their data), as well as generate both new potential revenue but also bold new employment / business opportunities for the city and province.



Oasis would be engaged to complete the following work:

- Oasis Technology is seeking preliminary estimates for an engagement to assist with a User Experience (UX) assessment and design of a MVP Web & Mobile application.
- Elevate and identify security best practices, from a user experience perspective, and provide recommendations based on findings.



EXPERIENCE

Fully design the experience

Fully design the experience through robust documentation that will guide the development process and ensure client alignment

Information Architecture

Define the way an interface will function through both low-fidelity visual representations and detailed functional requirements

Activities and Deliverables

- Wireframes
- Functional Designs

Visual Design & Motion Graphics

Define the visual style and motion of the experience and apply it to all interface states and customer touchpoints

Activities and Deliverables

- Creative concepts
- Extended visual designs
- Motion Graphics
- Style Guide

Prototype Development

Develop a representation of the experience that can be tested with end users ranging from a lo-fi paper printout to a nearly functioning user interface

Activities and Deliverables

- Lo-fi prototypes
- Hi-fi Prototypes

Useability Testing

Identify opportunities to improve an experience by observing an end user's attempt to complete common tasks

Activities and Deliverables

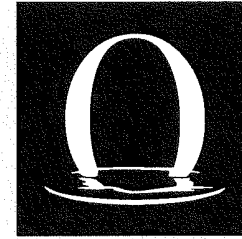
- Concept Testing
- Integrated design validation
- Prototype testing

Content Planning

Document a vision and roadmap for content, including themes, topics, voice, tone and content KPIs

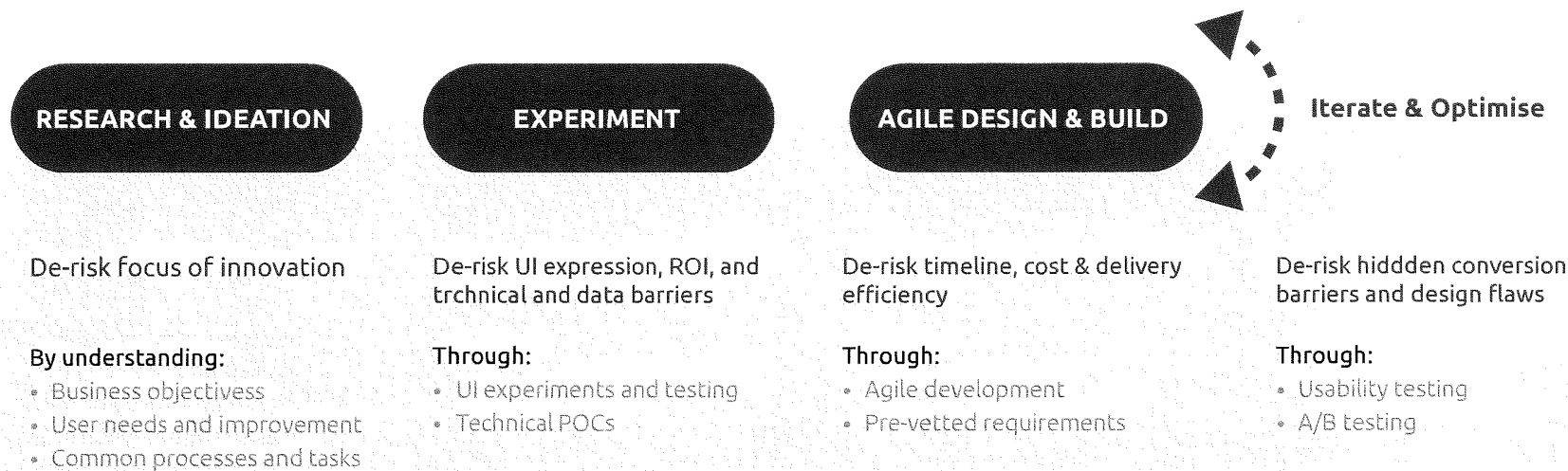
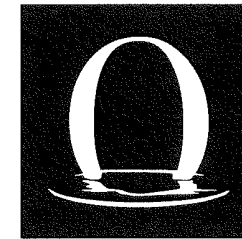
Activities and Deliverables

- Content matrix
- Editorial calendar
- Editorial style guide
- Content migration plan

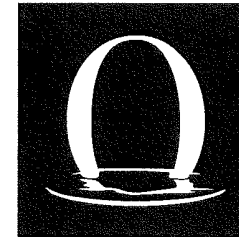


INNOVATION METHODOLOGY

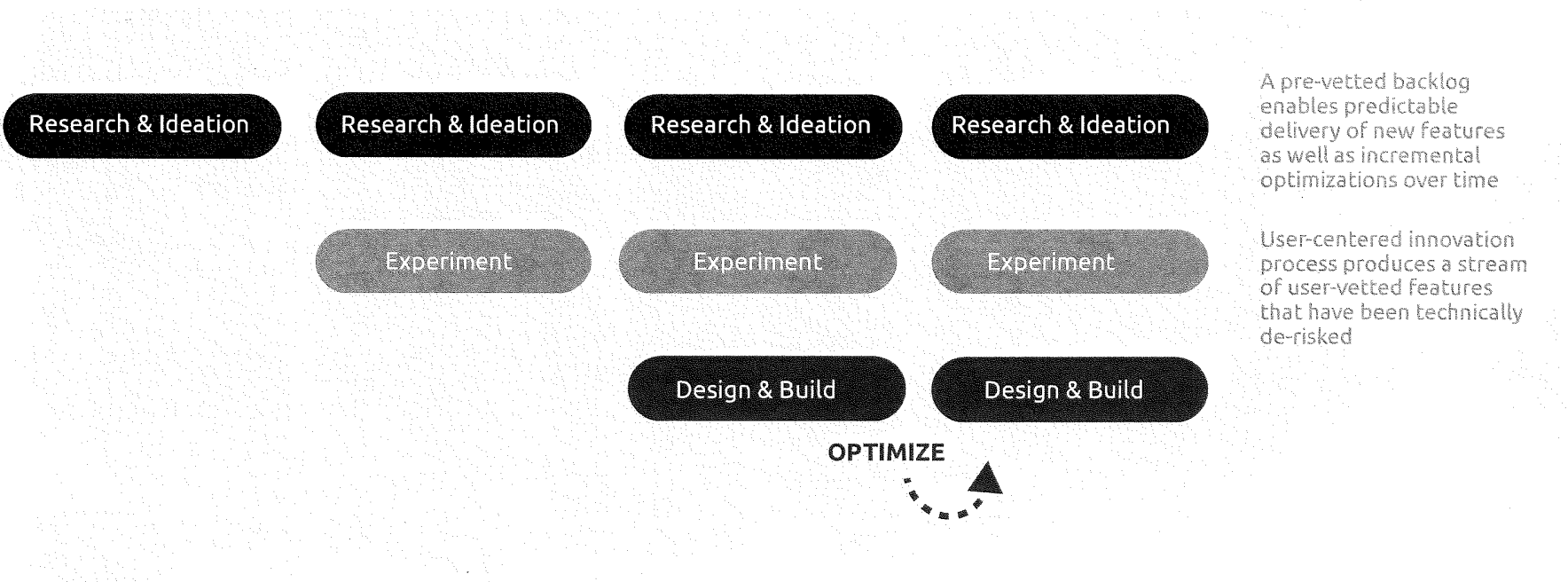
INNOVATION METHODOLOGY

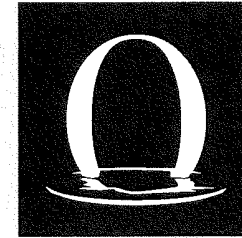


INNOVATION AS A PROGRAM



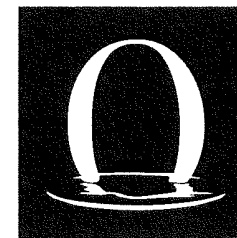
By running the phases of the program in parallel, we can achieve a consistent and predictable output of new innovative features





PROJECT INVESTMENT AND TALENT ESTIMATES

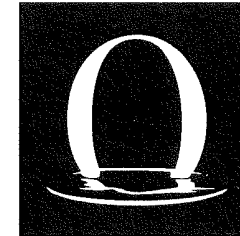
TALENT INVESTMENT - INITIAL 5 WEEKS



NAME AND ROLE

Account Manager	As Needed
Project Manager	1
UX Researchers	2
UX Designer	1
Business Analyst	1
Subject Matter Expert	2

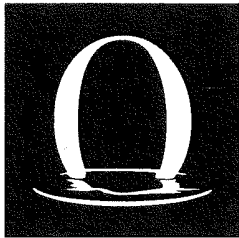
TALENT INVESTMENT - YEAR ONE



NAME AND ROLE

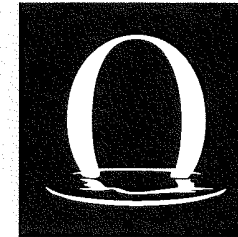
Account Manager	As Needed
Project Manager	1
UX Researchers	2
UX Designer	1
Business Analyst	1
6 IOS Developers	6
6 Full Stack Engineers	6
6 Android Developers	6
Subject Matter Expert	8

TALENT INVESTMENT - YEAR TWO



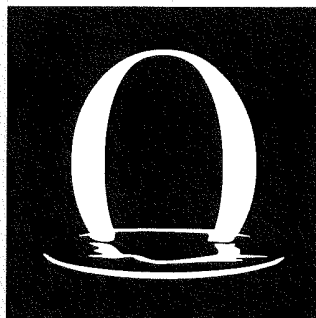
NAME AND ROLE

PROCESSED UNDER THE PROVISIONS OF THE ACCESS TO INFORMATION ACT / RÉVISÉ EN VERTU DE LA LOI SUR L'ACCÈS À L'INFORMATION



PROJECT INVESTMENT

PROJECT PHASE	ESTIMATED EFFORT	ESTIMATED INVESTMENT
VERSION 1.0 MVP	2 YEAR	\$3,564,000



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BECOMING CANADA'S HEALTHIEST COMMUNITY



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Health is a hot topic in Airdrie. Research shows that focusing on preventative health has a much stronger impact in keeping Canadians healthy than access to medical care alone (Source: Canadian Medical Association). The Smart Cities Challenge and our focus on preventative health will help us to achieve our goal of making Airdrie Canada's healthiest community. And, we will be able to share our approach, technology and learnings through a comprehensive program that can be replicated to have the same impact in all other communities across Canada.

We are a community with two partners, the City of Airdrie and Airdrie & Area Health Cooperative, who are committed to supporting our community to become healthier and are taking tangible actions to make it a reality.

OUR PROPOSAL

The \$10 million from the Smart Cities Challenge will utilize data and connected technologies that will support our goal of increasing healthy life expectancy by 3+ years over 5 years and ultimately change the lives of every resident in our community. Our proposal includes:

1. **Optimizing open data and connected technologies.**
2. **Building the HealthSmart Community Operating System (COS)** – a community connector that facilitates data to be exchanged between individuals, organizations and businesses.

3. **Developing the Smart Service Inventory** – a smart navigation system allowing users to know what services are available locally, how to access, why to access, and why it is best suited to them based on their own individual profiles and will mobilize community information regarding the social determinants of health.

4. **Connecting the COS with several technologies** that are outside of the Smart Cities Challenge through an application programming interface. Examples of other technologies include the Community Health Information Resource Platform (a partnership between the Airdrie & Area Health Cooperative and Alberta Health Services) to support the outcome measures important in achieving our Challenge Statement, activity and fitness tracking (e.g., FitBit), micro-credentialing and eMental Health.

5. **Connecting users to the HealthSmart Technology** through the MyAirdrie Portal, native mobile apps and kiosks offering access to all residents around the city.

HealthSmart Airdrie will connect the work we are doing to change the culture of our community to one that focuses on health, by implementing Blue Zones. By optimizing our environment – those settings where we live, work, and play, which influence our behaviour – we can make the healthy choice the easy choice so that we naturally adopt healthy behaviours.

(Source: Becoming a Blue Zones Community Handout – Blue Zones Project).

To build a technology that meets the needs of residents and gives them easy access to healthy choices, we will:

- Focus on the social determinants of health and connecting the technology to meet the current and evolving needs of residents – Chapter 1: Vision.
- Measure well-being through Community Health to provide indicators for individuals to assess how they are doing in relation to these determinants – Chapter 2: Performance Measurement.
- Provide a variety of opportunities for stakeholder input into the development and implementation – Chapter 6: Engagement.
- Implement a diverse and inclusive approach to stakeholder identification, involvement and engagement – Chapter 6: Engagement.
- Ensure privacy and security of data is core to the project – Chapter 4: Technology and Chapter 7: Privacy and Data

The implementation of our Smart Cities Challenge program will include best practices in project management, the stakeholder engagement methodology from the International Association of Public Participation, a detailed data management, privacy and security plan, well defined governance and supporting structures, sound contractual agreements and the identification of risks and mitigation strategies in a risk register.

The Smart Cities Challenge allows us to engage community residents and build a technology over the next five years, providing Airdrie with a unique opportunity to have a real impact on people's lives. Ultimately, increasing healthy life expectancy by 3+ years over 5 years.

Airdrie is excited to be the proving ground for creating a technology that enables our residents to achieve better health outcomes. We are even more excited to share the learnings of our journey with the rest of Canada. Together we can create a country of healthy, resilient, engaged and supportive communities.



CHAPTER 1 VISION



It's the year 2025. Your destination, the city of Airdrie. A place you've heard of as having a small-town feel and big city amenities and an innovative and entrepreneurial spirit, but something has changed. You experience a city like no other; new communities are planned with connection in mind – pathways, shopping and recreation are in walking distance no matter where you are and access to healthy choices are easy.

You can connect to community organizations for mental health support, employment, affordable housing and senior networks, and services like continuing education classes, budgeting tools and transportation through your phone, computer or a community kiosk using HealthSmart Airdrie. Everyone you meet understands that health is more than physical and mental health; health and connection are a way of living in Airdrie.

You meet Brandon. Five years ago, he didn't know how to add more vegetables to his family's meal and how to do it on a budget. Through HealthSmart Airdrie, he accessed cooking classes for picky eaters, recipe ideas from local businesses and budgeting resources through his local bank. Today, adding vegetables to meals is easy and Brandon has paid off his loans.



You also meet Sam. She was having trouble with school and was having a hard time dealing with her stress. Through HealthSmart Airdrie, she accessed counselling services, found a tutor to help her with her homework and joined the Airdrie youth group. She is now getting good grades and leads activities for teens in Airdrie.



You decide to try out HealthSmart Airdrie and create a single sign-on, giving you access to local services. You find Don and Marg. They were looking to meet more people in the community by sharing their favorite game, crokinole, but were having a difficult time getting out because they're not able to drive. They use HealthSmart Airdrie to set up a community group, schedule crokinole games and book a shared ride service. They are now in charge of Airdrie's first Crokinole Club.



Through your search, you also find H&W Airdrie Inc., a company that supports people new to the community. Before HealthSmart Airdrie, H&W had to conduct various searches and send their clients to multiple organizations to access community services. Today, H&W can use HealthSmart Airdrie to better plan its services and access local services like doctors, housing and employment for its clients, all in one place. You schedule an appointment with them to learn how to become part of the Airdrie community.

How did we get there? Our community leveraged the \$10 million Smart Cities Challenge (SCC) award to work together to create a connected community – one where people connect with meaningful, individualized, local information, resources and expertise that

helps residents make better, more informed choices about their overall well-being and the health of their families. By working together and engaging everyone in Airdrie, we created a health and well-being-focused movement in our community, where everyone,

including Airdrie's most vulnerable, feel welcome, safe, are supported and know that they belong.



OUR VISION:

HOW ARE WE GOING TO ACHIEVE IT

Airdrie's Challenge Statement is big. It commits to including all individuals, families and organizations in Airdrie and area to create an environment based on the social determinants of health (SDOH) – strategies that help connect the dots between people in the community with the policies that guide decisions and actions. It includes sustained community engagement and involvement to achieve the goal of increasing overall healthy life expectancy in Airdrie by 3+ years over 5 years.

Taking on this Challenge Statement will have impacts both provincially and nationally. Our success will be transformative in Airdrie, with learnings that can be applied across all communities in Canada. It will require a connected, caring community that supports everyone, embraces diversity and builds a culture where everyone can have a role in becoming Canada's healthiest community. And we know we can get there. Our vision is possible. Our proposal outlines three real and actionable ways to achieve this big goal:

1. We are a community with two partners, the City of Airdrie (CoA) and Airdrie & Area Health Cooperative (AAHC). We are uniquely positioned to focus on optimizing the technology opportunity presented

by the SCC and to engage the community in an intentional journey for health;

2. Our focus on health is underpinned by existing leading practices for community health; and
3. Our technology focus capitalizes on the SCC opportunity, by optimizing capacity within the CoA and AAHC and its partners to create a unique capability to connect individuals in the community and create an environment for smart community information to monitor outcomes toward our Challenge Statement.

A UNIQUE COMMUNITY: STRONGER TOGETHER TO MAKE A BETTER TOMORROW FOR ALL

Airdrie is a fast-growing and changing city. Today, we are 68,000 strong, with a diverse population that includes young families and an increasing senior population.

We are one of the fastest growing medium-sized communities in Canada with a projected population of 100,000 within the next ten years. Many view Airdrie as a prosperous city, with an average income of \$102,000 and many services for a city of its size.

Although Airdrie has many strengths, our community also has some significant challenges. The current economic climate has created unemployment, and a lack of full-time, good paying jobs amid a slow economic recovery.

We have additional challenges that need to be addressed if we are to reach our vision:

- Housing affordability.
- Lack of supports for youth mental health and service options for individuals of all ages. Stressors in the community are also evident regarding high rates of domestic violence.
- Lack of information regarding available services. Orienting newcomers to the vast array of services and programs available in Airdrie is a challenge in our growing community.
- Silos for service delivery.
- A desire for information enabling healthier individuals.

(Source: Together for Tomorrow - https://www.airdrieareahealthcoop.ca/pdfs/2018_04_18_Community_Report.pdf)



Figure 1.1 shows what Airdrie would look like if we were a village of 100 people. Source: Statistics Canada, 2016 Census of Population.

For the past five years, our community has repeatedly expressed a desire for a hospital. After many discussions, the Alberta government responded that hospital services are only about 25 minutes away in Calgary, and therefore a hospital is not warranted in Airdrie. The Minister of Health encouraged our community to look at health differently and stated in December 2015, "I am supportive of a grassroots approach to health."

This statement became the catalyst to a unique community opportunity in Airdrie:

1. We have a community vision focused on health; namely, to own our own health, becoming Canada's healthiest community!
2. We have an organization, AAHC, focused solely on being a catalyst for a healthy community.
3. We have a municipality, the CoA, embracing this vision, along with the Mayor's recent Proclamation that 2019 will be the Year for Healthy Living.



2019 YEAR OF HEALTHY LIVING

Whereas something different is happening in Airdrie. A new energy is moving through our community which draws strength from the collaborative spirit of our pioneer roots and shows us opportunity to flourish, grow and lead healthy lives as individuals and as a community, and

Whereas individuals within the community can be empowered to own their own health and the community as a whole can, together, own our own health, and

Whereas "healthy" is our mental and physical well-being. It extends to our minds, spirit, and our environment too, and

Whereas good health and wellness result in fuller lives, happiness, strength and prosperity, and

Whereas we are fortunate to live in a place with some of the best doctors, and health care workers and technologies in the world, and

Whereas we recognize our opportunities for fulfillment, activity, connection, and purpose happen naturally within our individual daily lives, and

Whereas health and well-being also require the support of our entire community, bringing together citizens, families, private sector and government to ensure that everyone living in airdrie has the knowledge to make informed health decisions in a city that actively promotes and protects good health and wellness, and

Whereas well-being begins at home and every individual should adopt an active and healthy lifestyle, and

Whereas healthy individuals make up healthy families. Healthy families make up healthy communities, and

Whereas we thrive as individuals, as families, as neighbours, and as a community, so, too, does our city. Together, we will make airdrie canada's healthiest community.

Now therefore Council of the City of Airdrie proclaims 2019 as the year of healthy living. Own our own health.

The CoA and AAHC are bringing the best of our two organizations toward the Challenge Statement and this proposal:

- The CoA is the lead organization for the SCC and the lead for the technology development.
- AAHC is a partner in the technology development and will be managing the community health engagement plan and measurement of outcomes for community health in a parallel manner to SCC technology developments.

BEST PRACTICE:

A COMMUNITY FOCUSED ON HEALTH

There are several leading practice documents to guide work in Airdrie to mobilize our vision for community health:

- An overview article from BC Healthy Communities (<http://bchealthycommunities.ca>) provides clear direction:
 - a. The fundamental core value of the healthy communities approach is capacity building and empowerment of individuals, organizations and communities.
 - b. The healthy communities approach needs to address multiple determinants of health and include five essential strategies: community engagement, multi-sectoral collaboration, political commitment, healthy public policy, and asset-based community development.
- *The Chief Public Health Officer's Report on the State of Public Health in Canada 2017* published by Public Health Agency of Canada focused on designing healthy living. The report ends with a call to action with specific focus on designing communities for Canadians to take charge of their own health.

The action plan for community health sponsored by AAHC incorporates concepts from the above documents (attached to the AAHC letter of support).

Realizing the community vision requires intentional and large-scale community engagement, AAHC has chosen the Blue Zones Project from the USA to bring their experience and methodologies for this city-wide community process. They also bring measurement expertise and the ability to provide predictive out-

comes regarding system-wide reduction in health care costs and projected impacts on life expectancy.

AAHC is building on this expertise with Alberta partners, including Alberta Blue Cross, for the well-being measure, to create a “made in Canada” measurement system. AAHC has also partnered with Alberta Health Services to create focused health policies and develop the Community Health Information Resource Platform (CHIRP – being developed in partnership with Alberta Health Services and the AAHC using in-kind contributions) to create dashboards with health outcome data.

Blue Zones also brings unique expertise in creating healthy living environments by collaborating with local developers, the CoA and Alberta Health Services to develop comprehensive built environment policies aimed at creating communities for healthy living.

The overall initiative, “Healthiest Airdrie, powered by a Blue Zones Collaborative”, will be the most comprehensive community engagement this community has experienced. It will begin April/May 2019 with an eight-month discovery process to plan community-specific engagement led by locally hired facilitators. Following this, there will be two years of structured engagement with the community. As outlined in Chapter 6: Engagement, there will be connections between stakeholder engagement related to technology development, Blue Zones and initiatives focused on community health and SDOH.

Fundamental to success with strategies for community health –as well as strategies that continue to meet resident’s needs in new ways —is to create a digitally connected and enabled community. The ability to inform and monitor the success of community health engagement requires smart community information, hence the importance of the HealthSmart Technology.

HEALTHSMART TECHNOLOGY:

THE HEART OF AIRDRIE’S

SMART CITIES CHALLENGE PROPOSAL

HealthSmart Technology will be a community connector - facilitating data to be exchanged between individuals, health and social service organizations, community not-for-profits, businesses, local, regional, provincial and federal government departments. It



will be extremely versatile and will be used to allow individuals to access a wide variety of data.

The underlying technology for the proposed HealthSmart Community Operating System (COS) is being used by many industries, including the highly regulated finance and insurance industries. The existing technology is expensive, well beyond the means of most municipal governments and is not presently designed to meet the more stringent privacy and risk legislation that municipal governments are held to. The creation of this technology with support from the SCC will allow local governments to become early adopters.

Airdrie's proposal to create a Smart Service Inventory (SSI – a smart navigation system allowing users to know what services are available locally, how to access, why to access, and why it is best suited to them based on their own individual profiles) will mobilize community information regarding the SDOH. By creating a system that allows for immediate access to personalized, verified, secure information, Airdrie and area residents will make meaningful connections to local resources, services, professionals, and social connections to help our residents make better, more informed decisions about their health and the health of their families.

HealthSmart Technology will also connect with the CHIRP. The goal is to create smart community information to support the outcome measures important in achieving the Challenge Statement.

At the foundation of our HealthSmart Technology, is learning from our benchmarking of other cities that have implemented smart technologies. Our benchmarking has shown that by focusing on the needs of a community, such as the goal to be a healthy city, technology is an enabler for community good and a significant catalyst for ongoing sustainability.

A FOCUS ON SOCIAL DETERMINANTS OF HEALTH: POWERED BY BOTH COMMUNITY HEALTH ENGAGEMENT AND TECHNOLOGY

Our submission focuses on SDOH, given their importance on impacting the community vision and the Challenge Statement. According to the World Health

Organization, SDOH “are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.”

The health of an individual, group, organization and the overall community is tied directly to the determinants of health. The determinants of health include the social, economic, physical and health care environments of a community and individual characteristics and behaviours of those in a community. For our project, we have decided to focus on eight determinants or factors for healthy living. (Figure 1.2)

The Community Health measures of well-being will provide indicators for individuals to assess how they are doing in relation to these determinants. Information from developing the SSI and monitoring usage trends will help the community understand the strengths and gaps related to SDOH, allowing us to improve health overall.

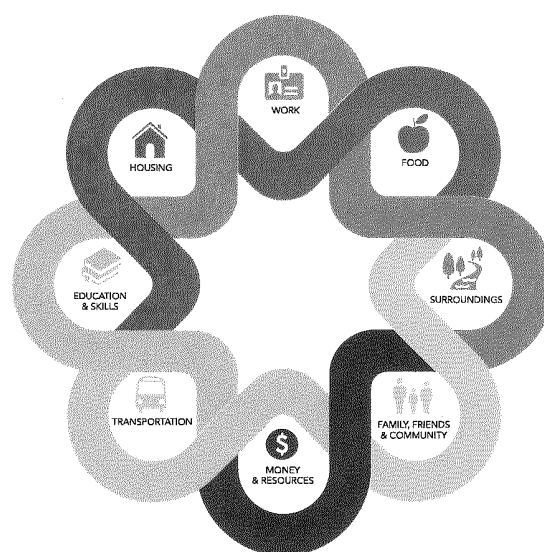


Figure 1.2 shows we are focusing on eight social determinants of health – housing, work, food, surroundings, family, friend & community, money & resources, transportation, and education & skills.

By focusing on health, we can build a smart community through which all environments and stakeholders are digitally engaged and enabled through open data, connected technologies and measurement. Open data and connected technologies allow for measurement

specific to individuals, families, need-based groups and the community and subsequently provide actionable insights. By focusing on health determinants, we can collectively focus on improving the lives of our residents and identify the real issues that need to be addressed in our community. Health is the common denominator.

PROGRESS TOWARDS OUTCOMES ACHIEVED DURING THE FINALIST PHASE

Over our comprehensive proposal development stage, we were able to flesh out the HealthSmart Technology more thoroughly to better understand how it can connect to other platforms and resources, the requirements for single sign-on, security and privacy, and how the technology will work, connect to and support our Blue Zones program. We were also able to conduct more research into the understanding and needs of our community.

During the proposal development stage, the Smart Cities Team attended AirdrieFest (a local festival aimed at promoting all that Airdrie has to offer), developed the HealthSmart Airdrie website, hosted an open house, sent out a survey, sent out email updates, and posted regularly on social media to ask Airdrie and area residents about health and what matters to them. Details of our findings can be found in Chapter 6: Engagement.

We created “HealthSmart Airdrie.” This includes a brand we have rolled out to the community through advertising, social media and a website (<https://healthsmartairdrie.ca/>). Our plan is to continue to use this brand to engage Airdrie and area residents in the SDOH, and the role they play in increasing individual and community well-being. Our aim is to increase understanding around SDOH, which would not only enable improved individual and population health, but also advance health equity. We are also working to “create social and physical environments that promote good health for all.” (Source: <https://www.cdc.gov/socialdeterminants/index.htm>)

City Council demonstrated their support for the health movement with a \$1.5 million contribution to bring the Blue Zones program to Airdrie. The movement, policy changes, and well-being measurement tools / data, which comes from the Blue Zones initiative, will help advance our Challenge Statement.

Recently City staff have been in discussions with major telecommunication carriers to advance fibre and wireless implementation strategies to get high speed fibre to every home and business in Airdrie and to expand 5G connectivity by the end of 2020. The CoA is in a good position to build upon partnerships to improve upon the services we deliver to our residents. This will improve technology access for all Airdrie residents.



AIRDRIE'S SMART CITIES JOURNEY

The City of Airdrie began implementing “smart city” initiatives in 2007 to collect data to better and more efficiently provide services to residents.

- 2007-2009 – Network connectivity at intersections
- 2007-2012 – Weather Stations report road conditions allowing for municipal business units to obtain real time data reducing fuel and resource costs
- 2008 – Centralized administration of all irrigation system for water conservation
- 2012 – Multi-Response Vehicle supports a multi-agency approach to assisting citizens in emergency situations
- 2014 – Flowpoint bulk water monitoring and distribution
- 2014-18 – CP Rail monitoring provides data to emergency responders
- 2015 – Remote monitoring and management of waste and water
- 2015 – UAV/Drone program to collect data for fire investigations, emergency operations and infrastructure inspections
- 2017 – Civic property protections
- 2017 – Broadband network infrastructure upgrade at intersections to support wireless communications, to collect road condition data, intersection pre-emption for emergency response vehicles, signal controls and timing, traffic count data
- 2018 – Municipal Enforcement in-car video offload to ensure chain of custody of video and audio footage from officer interactions
- 2019 – Telus will be connecting every home and business in Airdrie to the PureFibre network by the end of 2020 with 5G expansion future opportunities.

HOW OTHER COMMUNITIES CAN BENEFIT

All local governments can benefit from the creation of HealthSmart Technology. All communities, regardless of size, are struggling with sharing relevant information about local resources to help their residents, and the larger the community the more difficult it becomes.

There are three ways that other communities can benefit from the SCC investment in Airdrie:

1. The investment in technology (Chapter 4: Technology) will result in components that can be replicated in other communities.
 - a. The SSI will be an application that can be used in other communities.
 - b. The COS will be created with open technology for use by other municipalities in connecting data and systems. The more municipalities that connect to it, the more data we have and the stronger the technology becomes.
- c. The methodologies for making connections between systems and the policies to manage these will be useful in all municipalities.
2. The proposed CHIRP is being developed with Alberta Health Services in partnership with AAHC as a prototype for bringing together meaningful health and population information for a community. This is critical to make better use of the many data sources and indicators available in large health systems. The frameworks to create community-focused information and the resulting dashboards will be available to other communities.
3. The partners will share learning and key success factors learned through the large-scale community engagement process.

Municipalities are responsible for providing a healthy environment for their residents to live, work and play, and our municipality's unique partnership with the AAHC allows us to deliver a truly collaborative focus on health that can be replicated in other communities across Canada.



Becoming Canada's healthiest community will require continuous learning, engagement, and improvement to the health initiatives in our community. If we do not measure, we will not progress and achieve health gains in our community.

Our vision of becoming Canada's healthiest community and achieving our Challenge Statement of adding 3+ years of healthy life expectancy over 5 years, can only be accomplished through a series of collective

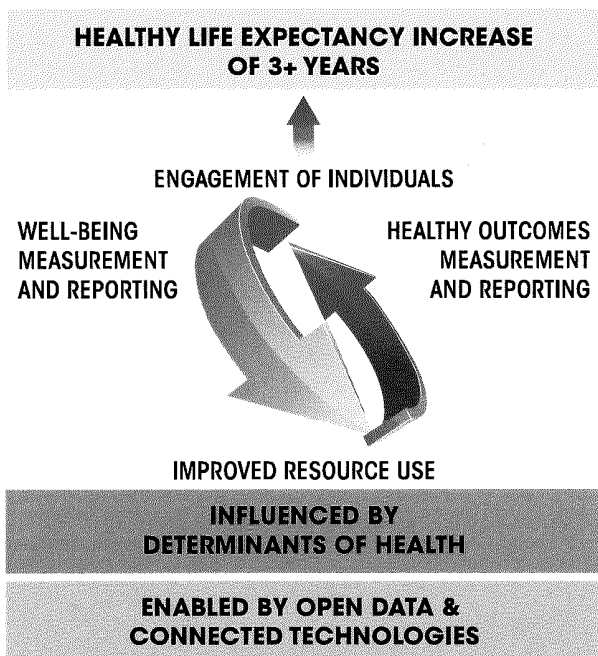


Figure 2.1 shows engagement of individuals, health outcomes, well-being and improved resource use, supported by the determinants of health and open data and connected technology can increase health life expectancy.

efforts and projects. Our performance measurement will be achieved through two main components: 1. Community Health Engagement; and 2. Technology.

To increase healthy life expectancy, we need the participation of individuals, and we need to measure well-being, health outcomes and improved resource use. Monitoring results each year will provide feedback regarding successes and citizens' needs to deepen community engagement work for community health. The availability of open data and connected technologies will be an important enabler to engage individuals and improved resource use.

The development of the Measurement System will be a year one initiative through a multi-stakeholder committee led by Airdrie & Area Health Cooperative (AAHC). This will build on expertise from Blue Zones and Alberta Health Service to create a "minimum data set of indicators" to monitor depth and scope of engagement, status of individuals relative to their perceptions of well-being, key indicators—leading and lagging—for health outcomes, and key indicators of changes in health care use. The objective is to express these indicators in dashboards for use in the community.

The measurement of well-being will be administered through individual participation and will provide them with an opportunity to reflect on their journey for health. There are several parameters in this survey that link to social determinants of health (SDOH) (Table 2.1).

Table 2.1 provides an overview of the measurement development process for each of the four measures.

Outcome Indicator	Example Metrics		Information Source	Gathering Process
	Year 1	Years 2-5		
Engagement	<ul style="list-style-type: none"> • Technology Development • Community Health Initiatives 	<ul style="list-style-type: none"> • Technology Development • Community Health Initiatives • Use of COS App 	<ul style="list-style-type: none"> • Technology Development stakeholder engagement process • Tracking system for community health engagement • Service Inventory analytics 	<ul style="list-style-type: none"> • Chapter 6: Engagement • Documentation of activities, summaries • Ongoing; periodic reports, minimum of annual trends
Well-Being	<ul style="list-style-type: none"> • Well-being apps usage • Pilot of well-being measurement tool 	<ul style="list-style-type: none"> • Well-being apps usage & data • Well-being scores • Service and resource utilization from COS app 	<ul style="list-style-type: none"> • Individual reporting • Connected Apps • Well-Being Tool • COS App 	<ul style="list-style-type: none"> • Annual survey to community • Ongoing, annual trend analysis
Health Outcomes	<ul style="list-style-type: none"> • Leading & lagging indicators of health defined • Comparative data sources outside of Airdrie identified 	<ul style="list-style-type: none"> • Leading & lagging indicators of health • Comparative data beyond Airdrie 	<ul style="list-style-type: none"> • Alberta Health Services • Above, including provincial & national surveys of health behaviours 	<ul style="list-style-type: none"> • CHIRP annual reports • Periodic
Resource Use	<ul style="list-style-type: none"> • Baseline measures identified / defined • Key health care metrics defined 	<ul style="list-style-type: none"> • Trends in service use per SSI • Key health care metrics reports 	<ul style="list-style-type: none"> • COS App (Dashboards, SSI) analytics • Alberta Health Services 	<ul style="list-style-type: none"> • Ongoing, annual trend analysis • CHIRP annual reports



**Becoming
Canada's healthiest
community will require
continuous learning,
engagement, and
improvement to the
health initiatives
in our community**

The goal of increasing healthy life expectancy is an overall and long-term impact, that can be achieved after in-depth and multi-year community engagement and strengthening of SDOH. Blue Zones has experience in developing a predictive model to estimate such an impact and they will be requested to provide this assessment at the end of this five-year project. Involvement of Blue Zones as a strategic partner offers the Airdrie community the opportunity to strive to become a “Blue Zones Certified Community” and requires:

1. Personal: At least 20% of citizens take the Blue Zones® Personal Pledge and complete one action.
2. Schools: At least 25% of public schools become a Blue Zones School™.
3. Worksites: At least 50% of the top 20 community-identified employers become a Blue Zones Worksite™.
4. Restaurants: At least 25% of independently or locally owned restaurants become a Blue Zones Restaurant™.
5. Grocery Stores: At least 25% of grocery stores become a Blue Zones Grocery Store™.
6. Community Policy: Completion of the Blue Zones® Community Policy Pledge.

These measures are an impact and indicator of progress toward our vision of becoming Canada’s healthiest community. Although this is not directly replicable by other communities without a commitment to Blue Zones, Airdrie will share learnings from this process to help other communities put together their health engagement process.

COMMUNITY INVOLVEMENT FOR PERFORMANCE IMPROVEMENT

Several community groups will be using information and outcomes. This will be made possible by HealthSmart Technology and the resulting dashboards. Some of these groups are already established in Airdrie (Mental Health Task Force, Domestic Violence Coalition, etc.) while others will be identified through the stakeholder engagement process.

The Council Collaborating 4 Health (CC4H), established January 2019, is the community oversight and

stewardship body with over 20 local champions and leaders that is guiding the collective impact strategy to guide overall integration and coordination and community-wide learning from all initiatives in the plan for Community Health. This is included in AAHC’s letter of support. This community body endorsed the proposed Smart Cities Challenge submission on February 20, 2019.

This group will:

- receive annual updates on overall progress—for information and to link to other community initiatives,
- be responsible for monitoring key progress steps and annual measures of outcomes from the community engagement strategy, and
- be the community sponsor for action related to enhancing SDOH per information received from the Smart Service Inventory system.

PROJECT MILESTONES

Table 2.2 outlines the measurement requirements, milestones and timelines over the five-year project and Table 2.3 provides the payment schedule. Table 2.4 logic model links the activities from the measurement requirements, milestones and time lines table, to the ability to complete the SCC funded technology development and to have outcome measure linked to the SCC. More details are provided in Chapter 3: Project Management.



Table 2.2 provides an overview of the measurement development process for each of the four measures.

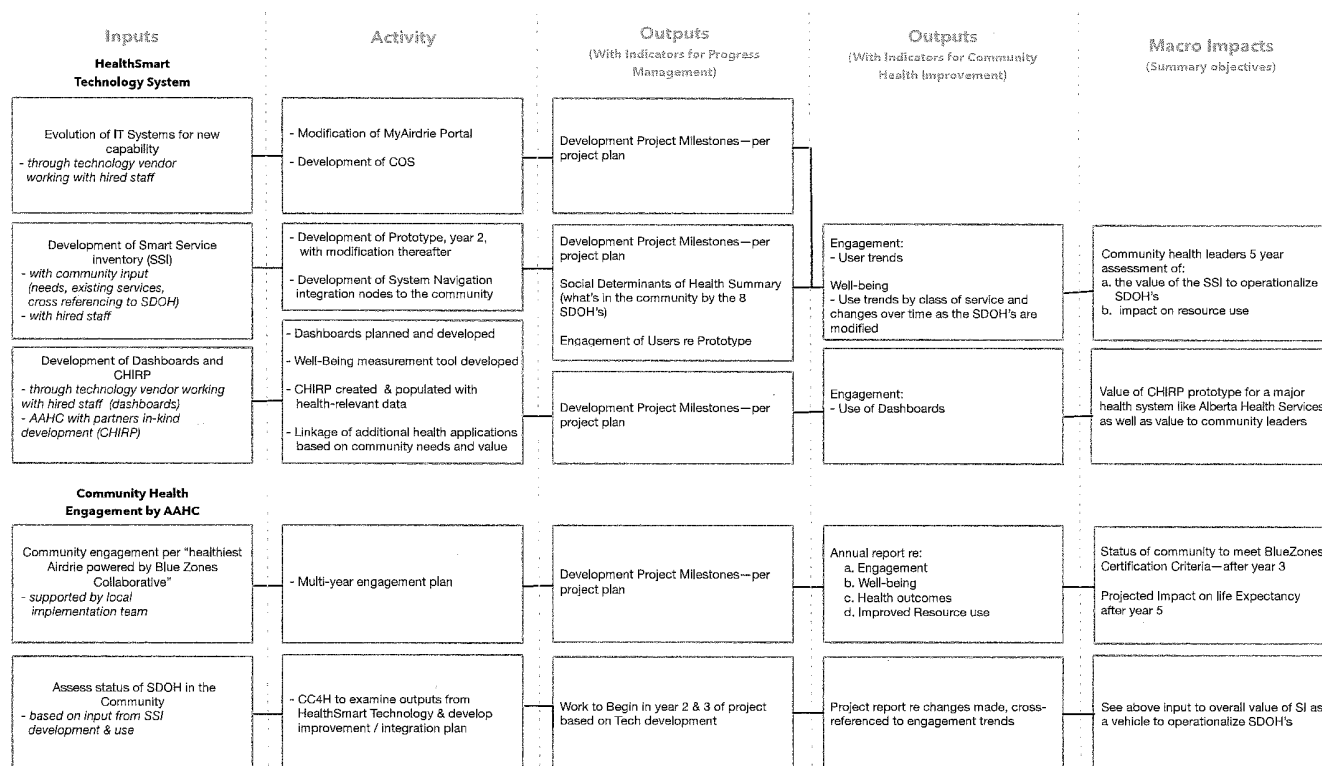
Measurement Type	Year 1	Year 2	Year 3	Year 4	Year 5
Technology Development & Implementation	<ul style="list-style-type: none"> • Project Team Assembled • Community Engagement re SSI • Technology Vendor Engaged • Technology Development Begins with Community input 	<ul style="list-style-type: none"> • Initial Technology Development completed • Prototypes available for community testing, response & evaluation 	<ul style="list-style-type: none"> • Technology Refinement / engagement 	<ul style="list-style-type: none"> • Technology Components in Place • Technology Refinement / engagement • Community engagement 	<ul style="list-style-type: none"> • Technology System in operation • Summary engagement
Community Health Engagement by AAHC	<ul style="list-style-type: none"> • Community Engagement Initiated • CHIRP Development begins including development of well-being measure • Measurement Plan defined • Baseline measures of outcomes 	<ul style="list-style-type: none"> • Full community engagement begins • Annual measure of outcomes Community input 	<ul style="list-style-type: none"> • Continued community engagement • Information from COS App (SSI) to be used to define SDOH plan 	<ul style="list-style-type: none"> • Evaluation re overall results & implications for sustainability, scale & spread • First indication of status re "Blue Zones Certified" Community 	<ul style="list-style-type: none"> • Community engagement in a mature phase • At end of year 5, Request to Blue Zones for assessment of overall results re change in life expectancy

Table 2.3 provides the project payment schedule over five years.

Project Payment Schedule	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
	\$3,579,513	\$1,643,034	\$1,575,616	\$1,591,838	\$1,609,999	\$10,000,000



Table 2.4 provides the logic model for the project.



RISKS AND ASSUMPTIONS

Table 2.5 outlines the risks and assumptions for the development of the HealthSmart Technology.

Risk	Mitigation Strategy
Development of the HealthSmart Technology	
Information Management Lifecycle: inadequate and/or outdated policies, practices and/or procedures that may hinder ability to provide high quality information assets that meet its strategic and operational goals and objectives.	<ul style="list-style-type: none"> • Leverage our investment in technology. • Increase quantity, range, complexity and relevance of information. • Increase the need for the maintenance of electronic information. • Increase electronic service delivery. • Increase expectations of the public and stakeholders.
Inability to utilize analytical procedures, budgets and other information to identify variances, unexpected results, or unusual trends for subsequent follow-up.	<ul style="list-style-type: none"> • Enhance functional activity management involving direct management review of performance and activities.
Compliance risk: Lack of compliance with legislation and regulatory requirements may result in unacceptable performance and cause an inability to achieve financial, operational, and stakeholder objectives.	<ul style="list-style-type: none"> • Enhance functional activity management involving direct management review of performance and activities. • Development and implementation of organizational legislative compliance monitoring program.



PROJECT SCOPE

The scope of the project includes the following:

- A HealthSmart Community Operating System (COS)
 - o The framework that allows data to be securely accessed by individuals, groups, organizations and the community. The COS provides a “virtual handshake” allowing the transfer of data from one party to another. Only encrypted transactional data is stored. Aggregated unidentified data may require storage. No other data storage will occur.
- The packaging and preparation of the HealthSmart Core COS to allow for implementation in a municipality / community environment. Airdrie will be providing a template for other communities in Canada. Other communities will be able to adopt and modify the Airdrie model to fit their needs.
- HealthSmart COS Application Programming Interface (API) (<https://www.youtube.com/watch?v=s7wmiS2mSXY>)
 - o The COS API will be the master API that other applications can use to connect to each other. The master API is the sole location providing the connection point for all applications.
 - o Custom API development for other systems to connect to the COS.
- Smart Service Inventory (SSI) – a smart navigation system allowing users to know what services are available locally, how to access, why to access, and why it is best suited to them based on their own individual profiles.
- Web portal integration for user access.
- Mobile applications for user access.
- Governance on how the technology will be managed and sustained.
- Stakeholder consultation and community engagement for release timelines, accessibility and usability of the web portal and mobile applications.
- Stakeholder engagement and landscape analysis on SDOH for what service inventory is most important in order to prioritize versions of service inventory.
- Stakeholder engagement of businesses, not for profits, and public organizations.

PROJECT METHODOLOGY

The City of Airdrie (CoA) follows a standard project methodology in accordance with the Project Management Body of Knowledge (PMBOK®) with adaptations to align with public organizational practices for use of public funds, approvals and procurement legislation.

Table 3.1 provides an outline of the standard CoA Information Technology Project Life Cycle..

PM Phase	Purpose	Gate Reviews & Approvals
Initiate	To identify that: a problem or opportunity exists within the business; the solution may be non-trivial in nature; and, a Business Sponsor is willing to be accountable for the solution.	At the Project Initiate Gate, the following decision is reached: Is the project request endorsed and prioritized by the Program / Project Steering Committee. Project Resources are assigned.
Assess	To produce more detailed information, that will be required by funding, technical and business groups.	At the Project Assess Gate, the following decision is reached: Is there financial or business viability? Does the Program / Project Steering Committee approve? Formal presentation to the Program / Project Steering Committee.
Plan	This phase is used to develop a description of what the project will deliver, who is involved and how and when it will be done	
Implement	This phase is used to develop a specific, detailed solution concept. The solution, as defined in the concept, will be designed, developed, tested, and turned over to operations. Any training requirements will be delivered in this phase.	At the project implement gate, the following decision is reached: Has the scope been delivered and does the implemented solution meet the needs of the business?
Go-Live	During this phase, the project goes live and is delivered to the intended users.	During go-live phase, the following decision is reached by IT leadership: Is the project team and operational staff prepared for the change?
Closeout	This phase begins after the solution has been delivered and the Steering Committee has confirmed that the project is complete.	At the Project Closed Gate, the following decision is reached: Have the administrative closeout tasks been completed and the financial and schedule summary been reviewed?



SCHEDULING, SEQUENCING AND DEPENDENCIES

Table 3.2 provides a summary of the milestones for the project.

Milestone	Finish	Output
Governance		
Governance model for project implementation	November 2019	Approved Governance Model
External Audit of Funding	Annually starting September 2020	Annual Audit Report to Infrastructure Canada
Community Employment Benefits (CEB) Reporting	Annually starting in August 2020	Annual CEB Report to Infrastructure Canada
Initiate		
Program Steering Committee approval of project scope	November 2019	
Assess		
Stakeholder Engagement & Communications – Visioning & Ideas for COS	March 2020	What We Heard Report
Requirements approval	March 2020	
Program Steering Committee approval of business case	April 2020	Business Case
Post Request for Proposal	May 2020	Proposal Request for Vendors
Tentative award	September 2020	Contract Negotiation
Execute contract	October 2020	Technology Vendor Contract Awarded
Implement		
COS Go Live	July 2021	Foundational System is Live
COS Dashboard V1	November 2021	Dashboard V1 is Live
COS Dashboard V2	November 2022	Dashboard V2 is Live
COS Dashboard V3	November 2023	Dashboard V3 is Live
COS Dashboard V4	November 2024	Dashboard V4 is Live
Not for Profits (NFP) functionality added to City of Airdrie (CoA) Business Directory	December 2019	NFP able to create accounts in CoA Business Directory
Census API	April 2021	Census API go live for COS
Perfect Mind API	April 2021	CoA Recreation System API go live for COS
Wearables API	April 2021	Wearables API go live for COS

Milestone	Finish	Output
Implement continued		
GIS Data API	June 2021	GIS Data API go live for COS
Social Media API	July 2021	Social Media API go live for COS
Local, Provincial, & Federal Open Data Platforms API	January 2022	Government Open Data Platform API go live for COS
Stakeholder Engagement & Communications Service Inventory	June 2020	What We Heard report
Service Inventory V1 & API	January 2021	Service Inventory V1 & API connected to COS
Service Inventory V2 & API	October 2021	Service Inventory V2 & API connected to COS
Service Inventory V3 & API	June 2022	Service Inventory V3 & API connected to COS
Service Inventory V4 & API	March 2023	Service Inventory V4 & API connected to COS
eMental Health API & Dashboard	April 2021	API & Dashboard built & connected to COS
Well-Being Tool API & Dashboard	September 2021	API & Dashboard built & connected to COS
People Like Me API & Dashboard	November 2021	API & Dashboard built & connected to COS
Micro Credentialing (Employers & Volunteers) API & Dashboard	January 2023	API & Dashboard built & connected to COS
Clinical Systems API & Dashboard	April 2023	API & Dashboard built & connected to COS
Accessibility & Usability Communications & Stakeholder Engagement	February 2021	What We Heard Report
Web Interface for COS connectivity	August 2021	COS connected to MyAirdrie Community Portal
Mobile Apps V1 for COS connectivity	October 2021	Mobile Apps V1 available to connect to COS
Mobile Apps V2 for COS connectivity	October 2022	Mobile Apps V2 available to connect to COS
Mobile Apps V3 for COS connectivity	October 2023	Mobile Apps V3 available to connect to COS
Mobile Apps V4 for COS connectivity	November 2024	Mobile Apps V4 available to connect to COS
Evaluation		
Communications & Stakeholder Engagement – Evaluations & Ongoing Sustainment	September 2024	Community Evaluation Report
Closeout		
Closeout Report & Presentation to Program Steering Committee	November 2024	Closeout Report

Table 3.3 provides the project plan based on approximate start date of September 2019. This date is dependent upon receipt of funding.

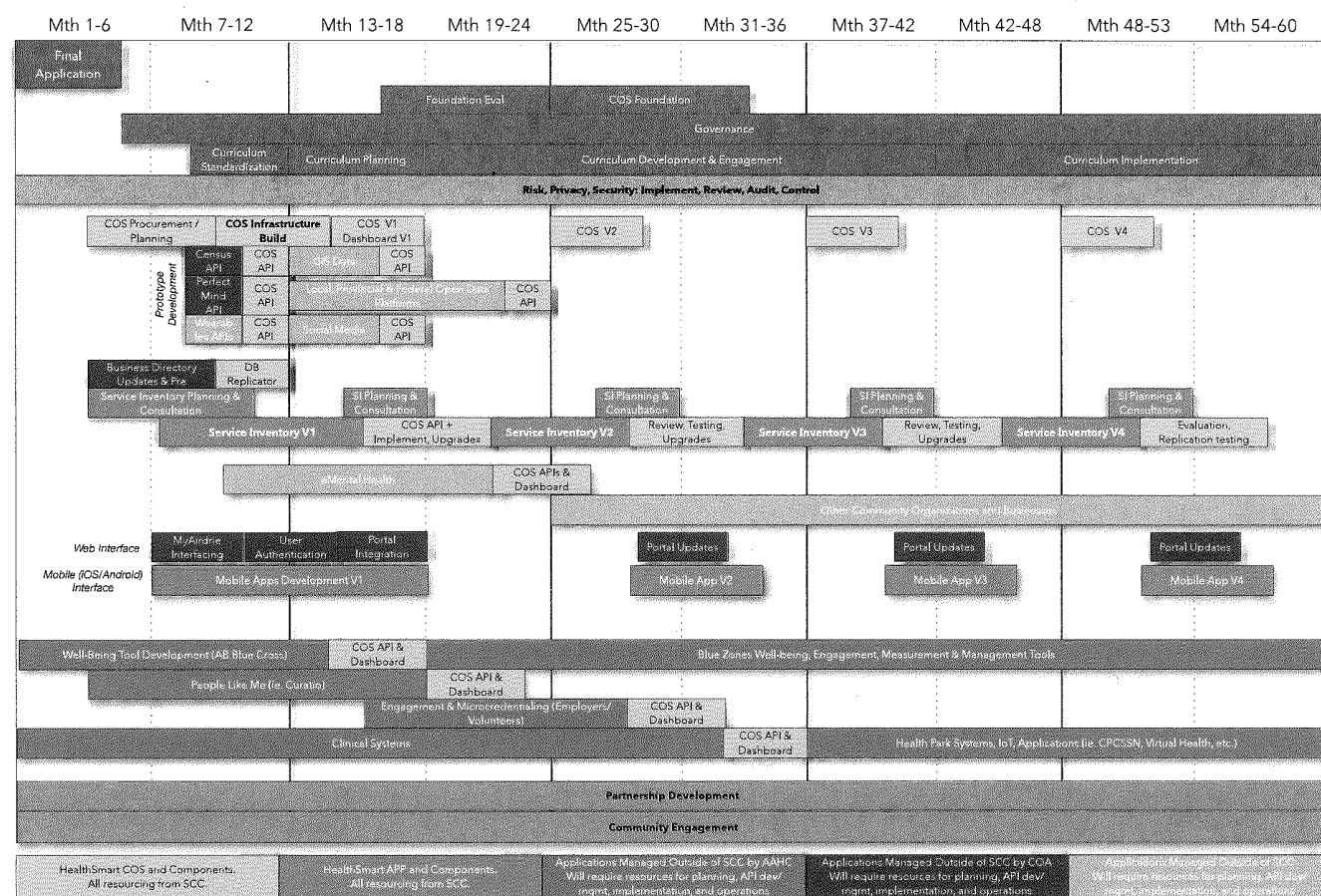


Table 3.4 provides a high level project overview. The detailed project plan is included in the financial appendices.

WBS	Task Name	Work	Duration	Start	Finish
0	Smart Cities Challenge Implementation Plan	28,741 hrs.	1410 days	Tue 19-09-03	Wed 24-11-20
1	Governance	775 hrs.	1380 days	Tue 19-09-03	Thu 24-10-10
1.6	Set up project team	12 hrs.	10 days	Tue 19-11-26	Mon 19-12-09
1.8	Signature Approvals of partnership agreement	2 hrs.	5 days	Thu 19-11-07	Fri 19-11-15
1.9	Annual External Audit of Funding Use	375 hrs.	1115 days	Fri 20-08-28	Thu 24-10-10
1.1	Annual Community Employment Benefit Tracking and Reporting	110 hrs.	1065 days	Fri 20-08-28	Mon 24-08-05
1.11	COS Governance	169 hrs.	126 days	Fri 20-09-11	Thu 21-03-04
1.11.1	Determine COS governance scope	10 hrs.	5 days	Fri 20-09-11	Fri 20-09-18
1.11.2	Determine requirements	10 hrs.	5 days	Fri 20-09-18	Fri 20-09-25

WBS	Task Name	Work	Duration	Start	Finish
1.11.3	Procurement for Foundation Governance Consultant	43 hrs.	39 days	Fri 20-09-25	Wed 20-11-18
1.11.3.1	Prepare & Gather Quotes	7 hrs.	6 days	Fri 20-09-25	Fri 20-10-02
1.11.3.2	Evaluation of Quotes	7 hrs.	5 days	Fri 20-10-02	Fri 20-10-09
1.11.3.3	Reference checks	6 hrs.	1 days	Fri 20-10-02	Mon 20-10-05
1.11.3.7	Award contract	0 hrs.	0 days	Tue 19-09-03	Tue 19-09-03
1.11.5	Review consultant COS governance report	3 hrs.	1 day	Wed 20-12-30	Thu 20-12-31
1.11.6	Legal Review of governance recommendations	20 hrs.	45 days	Thu 20-12-31	Wed 21-03-03
1.11.7	Determine COS governance model	3 hrs.	1 day	Wed 21-03-03	Thu 21-03-04
2	Initiate	40 hrs.	12 days	Fri 19-11-15	Mon 19-12-02
2.1	Needs assessment	28 hrs.	9 days	Fri 19-11-15	Wed 19-11-27
3	Assess/Envisioning	1,381 hrs.	310 days	Tue 19-09-03	Thu 20-10-29
3.2	Phase 1 Stakeholder Engagement & Communications	350 hrs.	78 days	Wed 19-12-04	Fri 20-03-20
3.2.1	Planning stakeholder assessment and plan	40 hrs.	20 days	Wed 19-12-04	Fri 20-01-03
3.2.2	Visioning & ideas for COS	310 hrs.	58 days	Fri 20-01-03	Fri 20-03-20
3.3	Requirements gathering	182 hrs.	45 days	Fri 20-01-03	Wed 20-03-04
3.4	Create business case	62 hrs.	30 days	Wed 20-03-04	Wed 20-04-15
3.5	Program Steering Committee review & approval of business case	6 hrs.	1 days	Wed 20-04-15	Thu 20-04-16
3.7	RFX Procurement	701 hrs.	105 days	Thu 20-04-16	Thu 20-09-03
3.7.1	Prepare & Post RFX	36 hrs.	56 days	Thu 20-04-16	Thu 20-07-02
3.7.2	Stage 1 evaluation - mandatory	70 hrs.	42 days	Thu 20-05-14	Thu 20-07-09
3.7.3	Stage 2 evaluation - core business requirements	76 hrs.	49 days	Thu 20-05-14	Mon 20-07-20
3.7.4	Stage 3 evaluation - other requirements, corporate evaluation	168 hrs.	55 days	Thu 20-05-14	Tue 20-07-28
3.7.5	Stage 4 evaluation - reference checks	9 hrs.	56 days	Thu 20-05-14	Wed 20-07-29

WBS	Task Name	Work	Duration	Start	Finish
3.7.6	Stage 5 evaluation - demonstrations	264 hrs.	22 days	Tue 20-07-28	Tue 20-08-25
3.7.7	Stage 6 evaluation - pricing	78 hrs.	6 days	Tue 20-08-25	Wed 20-09-02
3.13	PIA/PRA	4 hrs.	30 days	Wed 20-09-02	Thu 20-10-15
3.15	Financial setup for project	5 hrs.	300 days	Tue 19-09-03	Fri 20-10-16
3.16	Execute contract	1 hrs.	2 days	Fri 20-10-16	Tue 20-10-20
4	Implement	24,482 hrs.	1343 days	Mon 19-12-02	Wed 24-11-20
4.1	COS	3,754 hrs.	1107 days	Tue 20-10-20	Wed 24-11-20
4.1.1	Design	300 hrs.	40 days	Tue 20-10-20	Fri 20-12-11
4.1.3	Development / Configuration	922 hrs.	123 days	Mon 20-12-14	Wed 21-06-02
4.1.12	Go Live	14 hrs.	5 days	Tue 21-06-29	Wed 21-07-07
4.1.13	COS Dashboard V1	649 hrs.	102 days	Wed 21-07-07	Tue 21-11-23
4.1.13.1	Design	150 hrs.	20 days	Wed 21-07-07	Tue 21-08-03
4.1.13.2	Development / Configure	347 hrs.	46 days	Tue 21-08-03	Mon 21-10-04
4.1.13.8	Go Live	88 hrs.	15 days	Tue 21-11-02	Tue 21-11-23
4.1.14	COS Upgrades & Dashboard V2	569 hrs.	92 days	Thu 22-07-21	Wed 22-11-23
4.1.14.1	Design	150 hrs.	20 days	Thu 22-07-21	Wed 22-08-17
4.1.14.2	Development / Configure	347 hrs.	46 days	Wed 22-08-17	Tue 22-10-18
4.1.14.8	Go Live	14 hrs.	5 days	Wed 22-11-16	Wed 22-11-23
4.1.15	COS Upgrades & Dashboard V3	568 hrs.	92 days	Thu 23-07-20	Mon 23-11-20
4.1.15.1	Design	150 hrs.	20 days	Thu 23-07-20	Tue 23-08-15
4.1.15.2	Development / Configure	347 hrs.	46 days	Tue 23-08-15	Tue 23-10-17
4.1.15.8	Go Live	14 hrs.	5 days	Mon 23-11-13	Mon 23-11-20
4.1.16	COS Upgrades & Dashboard V4	569 hrs.	92 days	Thu 24-07-18	Wed 24-11-20

WBS	Task Name	Work	Duration	Start	Finish
4.1.16.1	Design	150 hrs.	20 days	Thu 24-07-18	Wed 24-08-14
4.1.16.2	Development / Configure	347 hrs.	46 days	Wed 24-08-14	Tue 24-10-15
4.1.16.8	Go Live	14 hrs.	5 days	Wed 24-11-13	Wed 24-11-20
4.2	Not For Profit Organizations added to Business Directory	53 hrs.	15 days	Mon 19-12-02	Fri 19-12-20
4.3	Census API	99 hrs.	36 days	Thu 21-03-11	Fri 21-04-30
4.4	Recreation Center Platform API	99 hrs.	34 days	Mon 21-03-15	Fri 21-04-30
4.5	Wearables API	101 hrs.	34 days	Mon 21-03-15	Fri 21-04-30
4.6	GIS Data API	101 hrs.	34 days	Fri 21-04-30	Wed 21-06-16
4.7	Social Media API	101 hrs.	34 days	Wed 21-06-16	Mon 21-08-02
4.8	Local, Provincial & Federal Open Data Platforms API	721 hrs.	126 days	Mon 21-08-02	Thu 22-01-20
4.9	Service Inventory	8,320 hrs.	790 days	Thu 20-04-16	Thu 23-03-23
4.9.1	Phase 2 Stakeholder Engagement and Communications	220 hrs.	39 days	Thu 20-04-16	Mon 20-06-08
4.9.3	Service Inventory V1 & API	2,050 hrs.	200 days	Wed 20-04-29	Thu 21-01-28
4.9.4	Service Inventory V2 & API	2,050 hrs.	200 days	Thu 21-01-28	Wed 21-10-27
4.9.5	Service Inventory V3 & API	1,750 hrs.	180 days	Wed 21-10-27	Mon 22-06-27
4.9.6	Service Inventory V4 & API	2,050 hrs.	200 days	Mon 22-06-27	Thu 23-03-23
4.1	eMental Health COS APIs & Dashboard	375 hrs.	50 days	Thu 21-01-28	Thu 21-04-08
4.11	Well-Being Tool COS APIs & Dashboard	375 hrs.	50 days	Tue 21-06-29	Fri 21-09-03
4.12	People Like Me (Curatio) COS APIs & Dashboard	375 hrs.	50 days	Fri 21-09-03	Fri 21-11-12
4.13	Community Involvement COS APIs & Dashboard	375 hrs.	50 days	Wed 22-11-23	Mon 23-01-30
4.14	Clinical Systems COS APIs & Dashboard	375 hrs.	50 days	Mon 23-01-30	Thu 23-04-06
4.15	Accessibility and Usability	9,258 hrs.	1058 days	Mon 20-12-14	Thu 24-11-07
4.15.1	Phase 3 Communications and Stakeholder Engagement	210 hrs.	36 days	Mon 20-12-14	Wed 21-02-03

WBS	Task Name	Work	Duration	Start	Finish
4.15.2	Web Interface	956 hrs.	813 days	Mon 20-12-14	Wed 23-12-13
4.15.2.1	MyAirdrie Interface	221 hrs.	56 days	Mon 20-12-14	Tue 21-03-02
4.15.2.2	MyAirdrie User Authentication	219 hrs.	56 days	Tue 21-03-02	Tue 21-05-18
4.15.2.3	MyAirdrie Portal Integration	219 hrs.	56 days	Tue 21-05-18	Mon 21-08-02
4.15.2.4	Portal Updates	99 hrs.	35 days	Mon 22-04-04	Thu 22-05-19
4.15.2.5	Portal Updates	99 hrs.	35 days	Tue 23-01-17	Mon 23-03-06
4.15.2.6	Portal Updates	99 hrs.	35 days	Fri 23-10-27	Wed 23-12-13
4.15.3	Mobile Apps (IOS / Android) Interface	8,092 hrs.	1022 days	Wed 21-02-03	Thu 24-11-07
4.15.3.1	Mobile Apps Development V1	2,998 hrs.	188 days	Wed 21-02-03	Mon 21-10-18
4.15.3.2	Mobile Apps Development V2	1,698 hrs.	128 days	Mon 22-05-09	Wed 22-10-26
4.15.3.3	Mobile Apps Development V3	1,698 hrs.	128 days	Mon 23-05-15	Tue 23-10-31
4.15.3.4	Mobile Apps Development V4	1,698 hrs.	128 days	Tue 24-05-21	Thu 24-11-07
5	Phase 4 Communications and Stakeholder Engagement	124 hrs.	38 days	Fri 24-07-12	Tue 24-09-03
5.1	Phase 4 Evaluation & Ongoing sustainment	124 hrs.	38 days	Fri 24-07-12	Tue 24-09-03
6	Closeout	89 hrs.	8.27 days	Thu 24-11-07	Wed 24-11-20
6.5	Present Closeout Report	2 hrs.	1 days	Tue 24-11-19	Wed 24-11-20
7	Project Management	1,850 hrs.	1396 days	Wed 19-09-04	Fri 24-11-01
7.1	Sponsor meetings	124 hrs.	1373 days	Tue 19-09-10	Tue 24-10-08
7.2	Project Team Meetings	810 hrs.	1389 days	Wed 19-09-04	Wed 24-10-23
7.3	Schedule Management	538 hrs.	1389 days	Thu 19-09-05	Thu 24-10-24
7.4	Budget management	126 hrs.	1394 days	Fri 19-09-06	Fri 24-11-01
7.5	Risk management review and analysis	126 hrs.	1394 days	Fri 19-09-06	Fri 24-11-01
7.6	Create project status report	126 hrs.	1394 days	Fri 19-09-06	Fri 24-11-01

PROGRAM IMPLEMENTATION TEAM RESOURCES AND STRUCTURE

PROJECT IMPLEMENTATION TEAM

Steering committee members are representatives from the CoA and the Airdrie & Area Health Cooperative (AAHC) and provide program oversight and governance. Members are existing staff of both the CoA and the AAHC. Possible members from AAHC: Chief Executive Officer, Chief Financial Officer, Chief Technology Officer; CoA: Chief Administrative Officer or delegate Director of CAO Office, CFO / Director of Corporate Services, IT Manager.

The Project Manager, two Developers, Business Analyst and Data Analyst will be new full-time positions and the Program Manager will be a new part-time position, all hired specifically to work on the project implementation. These positions are based on agile development and will be hired when their area of expertise is required for work to be completed.

COA ORGANIZATIONAL SUPPORT RESOURCES

Support resources required for specific tasks with limited time engagement.

- IT Developer
- IT Applications support

- Technology and security subject matter expert
- GIS Analyst
- Procurement services
- Corporate information governance leads
- Risk, privacy and governance
- Communication and engagement subject matter expert

AAHC ORGANIZATIONAL SUPPORT RESOURCES

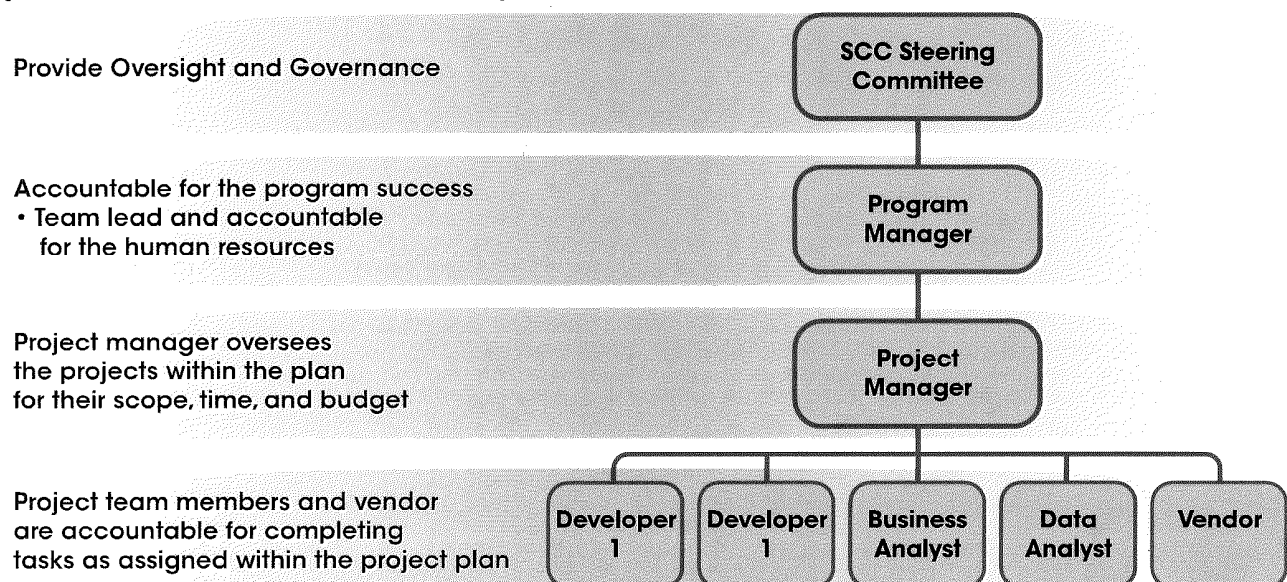
Support resources required for specific tasks with limited time engagement.

- Finance subject matter expert
- Technology and security subject matter expert
- Risk, privacy and governance
- Health subject matter expert
- Communication and engagement subject matter expert

TECHNOLOGY COSTS

Software Development costs are estimated at \$4.5M based on quotes provided by vendors that build this type of technology. Chapter 8: Financial and the financial plan in the appendices for details.

Figure 3.1 shows the structure our Smart Cities Challenge initiative.



RISK STRATEGIES

Project risk will be managed based on standard project risk management methodology. Project Risk Management outlines the principles of effective risk management:

- Plan Risk Management
- Identify Risks
- Perform Qualitative Risk Analysis
- Perform Quantitative Risk Analysis
- Plan Risk Responses
- Implement Risk responses
- Monitor and Control Risks

(Source: PMBOK Sixth Edition)

A risk register will be used to capture, manage and monitor risk details, including:

- Cause and effect
- Probability of risk occurring
- Impact to project if occurs
- Response strategies and actions

Risk mitigation and response strategies will be determined based on whether the risk is a threat (negative) or opportunity (positive).

THREAT RISK RESPONSES

- Avoid
 - o Avoid / eliminate risk by creating workarounds (e.g., changing the project schedule, adjusting the project objectives (scope), or taking other action to avoid the event). Protect the project from the impact of any risk.
- Transfer
 - o Transfer responsibility to manage the risk to a third party, with shared responsibility of ownership of the risk, usually for a fee.
- Mitigate
 - o Seeking options to reduce the probability and/or impact of the risk to an acceptable threshold (e.g., spend extra time or monies to reduce the risk on the project objectives).
- Accept
 - o Take no action until and unless the risk occurs and deal with the possibility of it occurring.

Table 3.5 lists a of sample risk events that may occur and that the project team will identify, analyze, manage and monitor.

Type of Risk	Examples
Technical, Quality, or Performance Risks	Reliance on unproven or complex technology, unrealistic performance goals, long term performance, process roadblocks, new emerging initiatives, increases in complexity, etc.
External Risks	Shifting regulatory environment, labor issues, changing customer priorities, government agency risks, and weather. Consultant and vendor contract risks, contract type and contractor responsibilities.
Organizational Risks	Lack of prioritization of projects, inadequacy or interruption of funding, inexperienced and poorly developed and trained workforce, and resource conflicts with other projects in the organization.
Project Management Risks	Poor allocation of time and resources, inadequate quality of the project plan, lack of project manager delegated authority, and lack of project management disciplines.
Change Management Risks	Poor user adoption, users not aware of existence, lack of knowledge of how to use the technology or its functionality.

OPPORTUNITY RISK RESPONSES:

- Exploitation
 - o Aiming to take advantage of a positive risk (e.g., PM and project team take advantage of a holiday weekend to work on the project uninterrupted).
- Enhancement
 - o Tries to make the conditions just right for a positive risk to happen. A tremendous amount of time can be saved and project costs if a milestone were to be finished by a given date, and to do so, extra resources need to be added to help the effort-driven work so that the team can complete the milestone by the specific date.
- Sharing
 - o This risk response allows the project team to partner or team with another entity (third party) to realize an opportunity together.
- Accept
 - o Willingness to take advantage of an opportunity if it arises but not actively pursuing it.

PROCUREMENT STRATEGIES

All procurement opportunities for the project implementation will follow the CoA's procurement policy, which establishes the general directions, philosophies, values for the procurement of goods and services, and addresses the legislative and liability restrictions the CoA works within.

The CoA Procurement policy can be found on the CoA's website. (<https://www.airdrie.ca/getDocument.cfm?ID=5914>)

CITY OF AIRDRIE

PROCUREMENT POLICY STATEMENT:

The CoA is committed to the acquisition of goods and services at the best value while treating all vendors equitably through a procurement process that ensures integrity, transparency, accountability, efficiency and consistency.

The CoA acts under all applicable legislation including:

- *Alberta Municipal Government Act* (MGA)
- *Agreement on Internal Trade* (AIT) (referred to as the Canadian Free Trade Agreement as of July 1, 2017)
- *Comprehensive European Trade Agreement* as of July 1, 2017
- *New West Partnership Agreement* (NWPTA)
- Applicable competitive bidding laws
- *Freedom of Information and Protection of Privacy Act* (FOIP)

STAKEHOLDER ANALYSIS

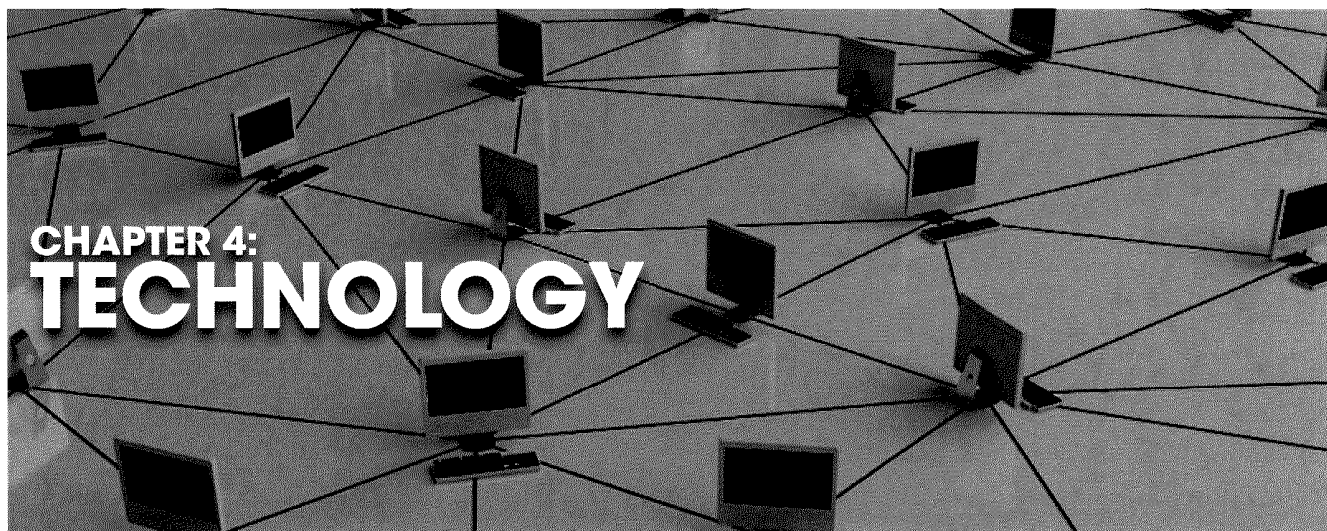
We will be developing an integrated stakeholder engagement and communications plan focused on involving stakeholders in the design, functionality and usability of the technology, understanding their needs and requirements and providing them with ongoing information about the project and how to get involved. The summary of this plan can be found in Chapter 6: Engagement.

COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT STRATEGIES

We will develop an integrated stakeholder engagement and communications plan focused on external stakeholders. More information can be found in Chapter 6: Engagement.

We will develop a plan for internal project communications to ensure the project team and partners are keep up-to-date about project activities, planning and implementing for engagement and communications activities and feedback collected to support the build and upgrades to the technology, and to ensure an ongoing understanding of roles and responsibilities.

We will be using activities like recurring meetings, project updates, status reports, lessons learned, share folder access, project planning tools and information flow as part of our project management strategy.



CHAPTER 4: TECHNOLOGY

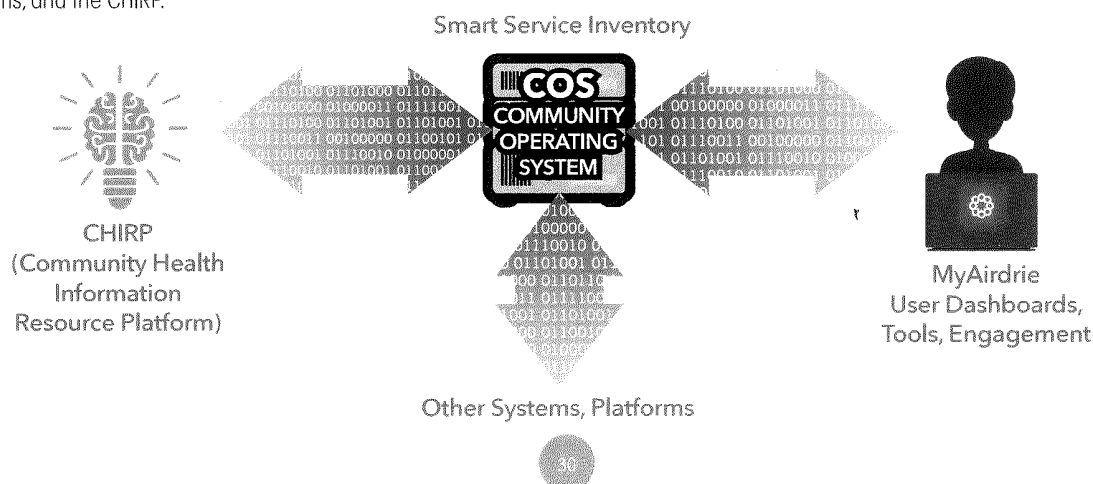
TECHNOLOGY OVERVIEW

Smart Health Information (SHI) is all about connecting disparate data sets to generate new insights, which will inform health efforts by individuals, groups, organizations, and the overall community. The HealthSmart Community Operating System (COS) enables SHI and will inform actions. SHI will identify new connections and linkages in the community, strengthen and drive new and existing health initiatives and foster innovation and change. Through our existing efforts in the community, we are creating a SHI roadmap towards better health and well-being for all. The COS will enable our efforts, breaking down silos and creating the capacity for existing platforms to communicate and share data securely and privately.

The COS is a smart information exchange. We do not need to recreate existing platforms or data repositories, nor will we need to store data. The COS is a connector, allowing information to securely flow between existing systems. We will reform the data landscape away from data acquisition, collection, storage, and toward the concept of knowledge / insight sharing, enabling the following:

- data mapping, sharing, and utilization
- the ability to measure and monitor
- providing customized content to inform improvement efforts
- information flow in support of effective planning and decision making
- system interoperability

Figure 4.1 shows the COS and the Smart Service Inventory connecting to user dashboards, MyAirdrie (the City's service platform), other systems and platforms, and the CHIRP.



- engagement and community building
- innovation

Availability of data is not the issue. Data is all around us. The issue is bringing the right data together to answer questions specific to a need. In parallel to the development of COS, the Airdrie & Area Health Cooperative (AAHC) will be developing a Community Health Information Resource Platform (CHIRP). CHIRP will be used to manage health and wellness specific tools and data sources. A connection between CHIRP and COS will allow for the answering of the health and wellness specific measurements as outlined in Chapter 2: Performance Measurement. The COS will also connect to other data sources, both open and those managed by the City of Airdrie (CoA). Information in each of these sources will be enhanced by engagement in the community. COS creates an information engine allowing for continual improvement.

A HealthSmart COS App will be an interface to individuals, groups, organizations, businesses, and the community to information. Available through any platform, either on the web or as a native mobile app, the COS App will act as a “Way Finder for Health,” providing insights through a smart service inventory and user managed dashboards. Gamification will be integrated throughout with an emphasis on fostering community engagement. Gartner Glossary defines gamification as “the use of game mechanics and experience design to digitally engage and motivate people to achieve their goals”. Gamification will allow for healthy competition across the community, fostering behavioural change. Built-in translation services will allow for any language based on community needs. The App will be built using open source technologies and will be available freely to other communities to use and customize to their own needs and will consist of three main

components: The Smart Service Inventory; Health Dashboards; and Profile Manager.

1. SMART SERVICE INVENTORY (SSI)

We will build a smart digital community inventory of available programs and services related to health and health care that can be digitally accessed and used by all individuals, groups, and organizations in the community. This inventory will be a community connector and way finder helping users and organizations navigate their available options, collaborate for gap filling, avoid redundancies, and optimize time spent on health activities. It also lays the groundwork for stakeholders working together to eliminate duplication and collaborate to identify and fill gaps in programs and services.

We will engage local individuals, groups, and organizations and expand the existing CoA Business Directory to include all organizations and social services. We will utilize the data from this existing Directory to provide the foundational informational elements (that can be produced by any other community). A project development team will be hired to build an interface and smart functionality (using open source technologies) that organizations can use to access, input, and collaborate. The SSI will allow for individuals, groups, and organizations to navigate to find resources, powered by artificial intelligence, pushing relevant information to users.

Development of the SSI will be influenced by local groups including Council, Collaborating 4Health, Mental Health Task Force, and Domestic Violence Coalition. These and other groups have spent countless hours working in the community and understanding the community landscape. This group will help co-create an inventory of available programs and services available in the community that are well understood and can be well utilized by citizens. Groups will come



together with subjective organizational views – moving to create community ownership for a connected and informed community making decisions together and moving to a software that supports a shared information source. The SSI will become greater than the sum of its parts, allowing all users to contribute and collaborate.

2. HEALTH DASHBOARDS

Health dashboards will connect individuals, groups, and organizations directly to the data through a series of visualization tools. Content will be provided to users allowing them to both be informed and to compare themselves to others. The dashboards will be populated from data connected through the COS. Dashboard views will be customized to meet the needs of an individual, group, organization, or the overall community. Dynamic tools will be integrated to allow for viewing data in different formats, across time and for specific needs.

Insights and gamification will be available, providing motivation for participation and involvement. We will work with local organizations to create a rewards system, further informing and connecting the community. Surveys and user inputs will allow for a more customized experience.

The Health dashboards will utilize a combination of business intelligence tools and custom created code. Metrics and reporting through the dashboards will allow for informed insights and decision making, once again acting as a way finder in the journey towards becoming Canada's healthiest community.

3. USER PROFILE MANAGER

Users will be provided with a profile administration tool within the COS App. Through the profile administration, users will have the ability to:

- a. Manage account information – Each user will need to set-up their own account and login information. Basic demographic information will be captured to allow for secure authentication and capacity for connecting to the COS and associated data sources.
- b. Select connected services – The Profile Manager will inform the user as to what apps and services are currently compatible with the COS. Users will have the ability to select the services they would

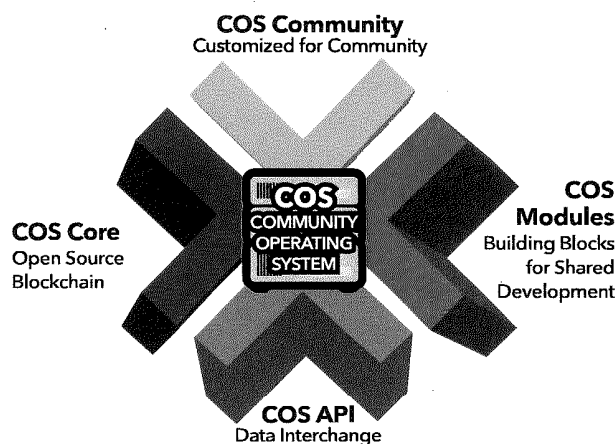


Figure 4.2 shows four main components, Community, Core, API and Modules connecting to the COS.

like to connect and integrate with. As services are connected, additional information will be available to the user providing a more robust dashboard and smarter navigation in the community inventory.

- c. Share information – Users will be able to create a network of peers and groups through the capacity to share information. Users will be able to select what they would like to share, whether it be specific data elements or a generalized dashboard. Sharing information will enable community development and accountability.
- d. View and manage information access – Users will have access to a comprehensive information audit log, allowing them to see how their data is used by themselves, connected services, and by shared individuals and groups. Full transparency and control will allow each user to own their own information.

TECHNOLOGY DETAILS

The COS will be a private blockchain, an algorithmic and distributed data structure for managing electronic information among people (<https://www.youtube.com/watch?v=3xGLc-zz9cA>), built on open source technologies. Based on our current research, the Hyperledger (<https://www.youtube.com/watch?v=js3Zjxbo8TM>) project will be best suited as it prioritizes user privacy and security. According to IBM, “Channels, supported in Hyperledger Fabric allow for data to go to only the parties that need to know.” The COS will have four main components: COS Core, COS Community, COS API (Application Programming Interface), and COS Modules.

HEALTHSMART COS CORE

Built using open source blockchain, COS Core will establish an infrastructure and provide foundational components such as authentication, access, and security. User permissions and authentication will be vital to establishing a private and secure infrastructure to build upon. Unless an individual provides authorization to data, that data can only be seen by the individual.

HEALTHSMART COS COMMUNITY

COS Community is the customization of the core to meet the needs of the community. Customization will include administrative tools and configurations, algorithms, logic and capacity for system learning and evolution over time. We will establish a standardized set of development protocols without the constraint of a single development language. COS Community will be compatible with a wide array of development languages (Python, NodeJS, Java, etc.) allowing for increased interoperability, innovation and shared expertise. We will work with a technology vendor to customize the blockchain to the needs of Airdrie, providing a proof of concept for other communities.

HEALTHSMART COS API

COS API (a master Application Programming Interface) (<https://www.youtube.com/watch?v=s7wmiS2mSXY>) will be developed, enabling a comprehensive data interchange and providing a central mapping and access point for data sharing. The COS API fosters interoperability through defining protocols and standards for system connectivity and information sharing. Third parties, innovative members of the community, and entrepreneurs can engage with and connect to this product / service. This will facilitate innovation and the potential of new businesses in the community and support the healthy community engagement initiatives to support a culture and shared vision of community engagement around health and the social determinants of health (SDOH).

COS Community and COS API work together to form a platform for individuals, groups, organizations, and the community to have access to, understand, and utilize information.

HEALTHSMART COS MODULES

Taking a modular approach will improve collaborative

efforts as development will not be confined to one vendor. COS Modules provide building blocks for shared development and innovation. We will be providing the capacity for new and existing applications to connect with the COS. COS Modules will be based on best practices / industry standards, allowing for future friendly development and additions based on community needs and technology advancements. As COS is replicated in other communities, innovations and connected modules created in one community can be shared and utilized in another.

APPROACH TO FUTURE-PROOFING

We live in a world of apps, platforms, and devices. We are not trying to re-create the wheel. Interoperability is a core function of the COS. The concept of “works with” has been used by Google, Amazon, Apple and many other of the leading technology companies. We will be implementing this concept at a community level. We will be taking a strategic approach when it comes to connecting apps and services. Apps, platforms, devices and other services will be vetted based on local community needs.

We recognize that use cases and needs will evolve over the next five years. For every connection, we will be providing learning for other communities, including a connection “recipe book”, experiential learning, and policies. We will also be providing the code required to connect and integrate data into the COS App. We will work with subject matter experts and consultants to optimize implementation and user experiences. At the time of writing, we plan on focusing on the following use cases and connecting the following services (creation of APIs) as part of our smart community project:

- Activity and Fitness Tracking. We will connect to devices like FitBit, Google Fit, and HealthKit. We will also connect to our local recreation system platform.
- Health and Wellness Measurement. The (AAHC) has established partnerships with Alberta Blue Cross, Alberta Health Services, and Blue Zones. Through these partnerships, a health and wellness measurement tool will be developed that will allow for individual and organizational health scores and tracking metrics. This tool will provide the capacity

to measure and track healthy life expectancy (Chapter 2: Performance Measurement).

- **Community Connections.** Users can connect with others that are like them and share insights, access resources, and come together for a shared and connected health journey.
- **Community involvement and Micro-credentialing.** Provides the capacity of micro-credentialing and involving individuals and organizations through connecting opportunities for volunteering and employment.
- **eMental Health.** The local Mental Health Task Force has identified youth mental health apps as a strategy for change in our community. We will be working with this Task Force to integrate selected apps.

The SDOH will be driving factors as applications are selected to be connected into HealthSmart Technology. We will create a partnership ecosystem where everyone can work together towards the shared vision of becoming Canada's healthiest community. Our operating structure will allow for co-development and focusing on meeting our community needs rather than on any one specific product.

SECURITY AND PRIVACY

Security and privacy will be central to the COS. We will develop a System Security Plan (SSP) that will comply with best practices identified through consultations with leading security experts. We will work with partners to conduct regular internal and external audits monitoring system security, risk, and privacy. The SSP will clearly delineate roles and responsibilities and will have tight control and monitoring systems. We will also be working closely with privacy experts and organizations. A risk framework and standardized approach will be interwoven in every stage of the

project. We will be in full compliance to local, provincial, and federal privacy laws.

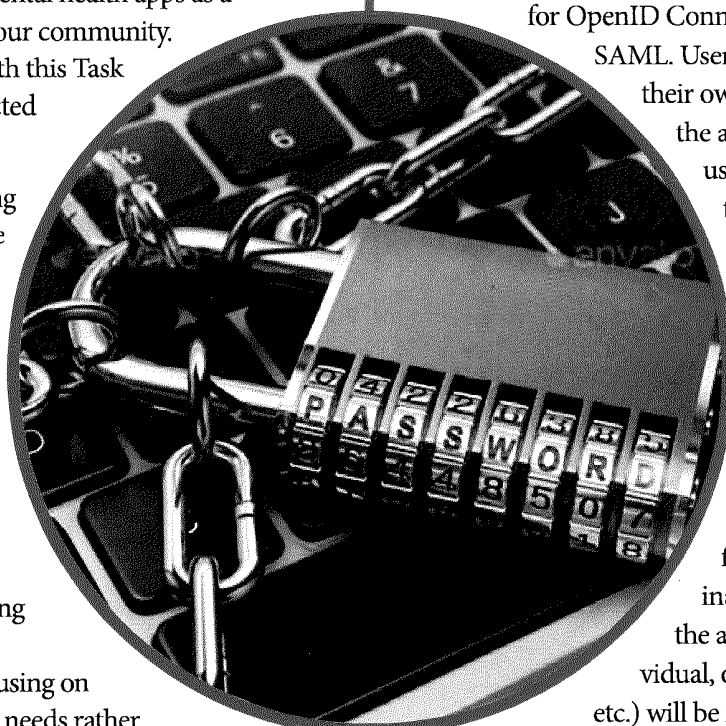
The design of the COS is underpinned by data and privacy considerations. COS will utilize leading edge principles and standards to authenticate and create identity maps for each participant. Keycloak, an open source identity and access management solution, will be integrated into the COS, providing capacity to have a secure single sign-on (one master login for multiple platforms) and enabling interoperability between existing systems without the need to store user credentials while keeping information secure. Keycloak is built on standard security protocols, providing support for OpenID Connect, OAuth 2.0, and

SAML. Users will be able to manage their own accounts, including the ability to view history of use and connected systems that have been authorized for the single sign-on.

Regular system utilization audits will be facilitated through an automated system access and usage log. Predefined rules will be built-in to automatically flag data breaches and/or inappropriate access, and the appropriate parties (individual, organization, authority, etc.) will be notified. We will follow

the rules identified by FOIP, PIPEDA, HIA, and GDPR. AAHC will work with Alberta Health Services and Alberta Health to define consistent audit standards and requirements.

The COS will allow for the sharing of data (e.g., insights, benchmarking, data transfer, etc.) as directed by the data owner or by predefined applicable and permissible use cases (e.g., medical emergency, preauthorized access) within the confines of the local, municipal, provincial, and federal privacy guidelines. Users will be able to select what information they want to have access to and will be in control of who else can access that data.



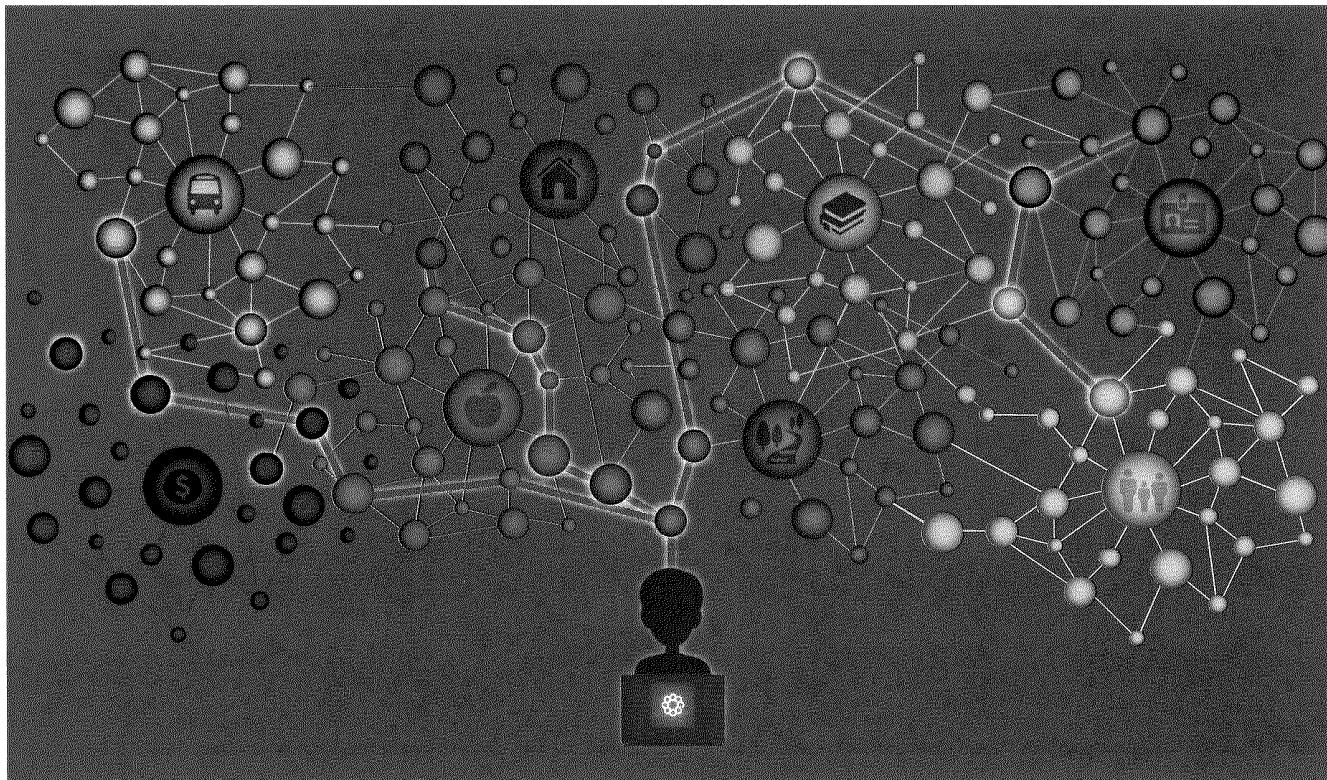


Figure 4.3 shows a search query connecting a user to various health related information.

Curriculum will be developed locally, based on the technologies used in the COS, that will empower anyone to participate. We will use best practices to guide standards and processes and take advantage of existing curriculum platforms providing free coding training and tutorials. We will host hackathons and connect those with ideas to those with technical expertise to bring new innovations to life. Exposure to the community through healthy community engagement efforts will be further strengthened providing fuel for economic growth and development in Airdrie. Our movement is community driven, our technology will support and even further strengthen the ability of the community to get involved. Information enables impact and we see this as a vital component of our community transformation.

The COS will require a collection of efforts from partners and experts. It will require community engagement and collaboration. Interoperability will be fostered as the COS will be both vendor and development language agnostic. Anyone will have the potential to contribute. We will partner with experts and industry leaders to ensure best practice.

DATA MANAGEMENT

No individual or identifiable data will be stored in the COS. Data stored by the COS will be for the use of verification, security, mapping, and utilization of data including algorithms, data maps, and other configuration details. Some aggregated, non-identifiable data may also be stored to allow for baseline analytics and comparative benchmarking. A series of information mapping and supporting databases will contain information such as the transactional ledger, containing mapping and configuration details for each participant and allowing for every system interaction to be securely verified and logged. All ledger information will be encrypted and will allow individuals to have full transparency as to who, how and where their information is being used. All information will be stored on a Canadian-based servers.

Partnerships will be developed with data custodians and managers to utilize APIs and other connectivity tools to establish interoperability of existing platforms and tools. The COS will have the capacity to execute search queries to retrieve relevant information from the appropriate sources as existing platforms are

connected to the COS. Information from the queries will be surfaced and cached temporarily through the encrypted COS App. Authentication through the App will be required in order to display usable information, providing security against hackers or breaches of the data channels. Where possible, metadata and knowledge about the data (content) will be surfaced instead of the actual raw data.

A primary concern of any data centric engagement is data security. We will be leveraging zero-knowledge proof principles to create a trustless (a system that operates in the same manner regardless of the user's intentions honorable or malicious) and secure data management system that maximizes data integrity and truly allows individuals to own their own information. In addition to local, provincial, and federal privacy laws (e.g., *Health Information Act*, *Personal Information Protection and Electronic Documents Act*, *Freedom of Information and Protection of Privacy Act*, *Digital Privacy Act*, etc.) we will also be adhering to the *General Data Protection Regulation* (as a new set of rules, established by the European Commission, designed to empower citizens, to govern the privacy and security of personal data) to ensure that individual privacy is of foremost importance. No sensitive individual or entity data will be stored within the COS.

DATA/ INFORMATION SOURCES

We have identified four categories of information sources:

1. **Municipal Information Assets.** The CoA has access to several data sources, including the Census, Recreation Centre, and Business Directory. These data sources will be essential in establishing community denominators as well as locally specific context.
2. **The CHIRP platform.** Owned and managed by AAHC is used to manage health and wellness specific tools and data sources.
3. **Open Data Sources.** Open data sources will be connected and utilized based on use cases and community needs. Managed externally, sources such as StatsCan or Alberta Open Data will be vital to provide comparative data and benchmarking.
4. **Other Data Sources and Platforms.** Community organizations, external partners, and others may

have access to other data sources that are not managed by the CoA or AAHC. Connections will be made based on use cases and community needs. An example of another data platform will be our local food bank, and their use of the Link-2Feed platform. We will create connections and linkages to this platform to meet a specific need or requirement.

The management of tools, applications, and data hosting is the responsibility of our partnering organizations.

ACCESSIBILITY AND USABILITY

Accessibility and usability of the COS App will be core to our technology efforts. Our development team will be working with design consultants that have expertise in gender-based analyses and accessibility. We will make the App cross-platform to allow for ready availability on any device. We envision three main access points for the COS App:

1. HEALTHSMART WEB APP THROUGH THE MYAIRDRIE PORTAL

The MyAirdrie Portal is currently used by the CoA to provide citizens with information about their homes, taxes, licensing, and several other services. Currently, over 22,000 households have registered accounts through the Portal. We want to provide a single connection point to facilitate access. The HealthSmart web application will be accessed through the MyAirdrie Portal. A single authentication between the MyAirdrie sign in and the COS login will allow for users to log in once to view all their information in one location. In addition to existing services on the MyAirdrie Portal, users will have access to new tabs containing the different components of the HealthSmart App. These will be embedded into the MyAirdrie Portal using encrypted web technologies and appear to the user as a seamless integrated experience.

2. NATIVE MOBILE APPS

Native mobile apps (iOS / Android) will be developed, allowing users to have all their information securely available at their fingertips. The apps will be made available for free and work asynchronously with the web app.

3. KIOSKS

Mobile Kiosks will be strategically placed in public locations (library, recreation centre, City Hall, etc.). These kiosks will be preloaded with the HealthSmart App, allowing for secure access and utilization by anyone in the community. Protocols and rules will be

developed to ensure access to personal information is available only with the proper authentication. Other smart communities have instituted smart cards to authenticate users. We envision something similar for the public kiosks and data stations.

Table 4.1 identifies the components of an effective technology risk management evaluation.

Risk	Description
Standard Risk Considerations	
Strategic	First, we need to evaluate whether we want to be at the leading edge of adoption or wait to adopt until the technology matures. Second, given the peer-to-peer nature of the technology, it's important to determine the right network and who to partner with as our business strategy may be impacted by the different organizational cultures participating on the chain. Third, the choice of the underlying platform may pose limitations in the services or products that can be delivered via the platform.
Business continuity	Blockchain technologies are generally resilient due to the redundancy resulting from the distributed nature of the technology. However, the processes built on blockchains may be vulnerable to technology and operational failures as well as privacy breaches due to cyberattacks. We need to have a robust business continuity plan and governance framework to mitigate such risks.
Reputational	Unlike other IT type applications, blockchain technology is part of core infrastructure and will have to work seamlessly with legacy infrastructure and legacy data platforms. Failure to do so may result in poor client experience and regulatory issues.
Regulatory risk	Across the globe there's uncertainty around the regulatory requirements related to blockchain applications. Additionally, there may be regulatory risks associated with each use case, the type of users in the network, and whether the framework allows domestic or cross-border transactions. This may also include business cross-border regulations related to privacy and data protection.
Operational and IT	Existing policies and procedures will need to be updated to reflect new business processes. Additional technology concerns may include speed, scalability, and interface with legacy systems in implementing the technology.
Contractual	There will likely be several service-level agreements (SLAs) between participating nodes and the administrator of the network, in addition to SLAs with service providers that will need to be monitored for compliance.
Supplier	Firms may be exposed to significant third-party risks since most of the technology might be sourced from external vendors.

Risk	Description
Value Transfer Risk Considerations	
Consensus protocol	The transfer of value in a blockchain framework occurs using a cryptographic protocol that arrives at a consensus among participant nodes to update the blockchain ledger. There are several such cryptographic protocols that are used to achieve consensus among participant nodes for updating the blockchain ledger. Each such protocol will have to be evaluated in the context of the framework, the use case, and network participant requirements.
Key management	While the consensus protocol immutably seals a blockchain ledger and no corruption of past transactions is possible, it is still susceptible to private keys theft and the takeover of assets associated with public addresses. Digital assets may become irretrievable in the case of accidental loss or private key theft, especially given the lack of a single controller or a potential escalation point within the framework.
Data confidentiality	The consensus protocol requires that all users in the framework can view transactions appended to the ledger. While the transactions in a permissioned network can be stored in a hashed format to not reveal the contents, certain metadata will always be available to network participants. Monitoring the metadata can reveal information on the type of activity and the volume associated with the activity of any public address on the blockchain framework to any participant node.
Dispute Resolution	The current school of thought for blockchain risk has warned of that the adoption of distributed ledger technology may introduce new liquidity risks. In current business models, intermediaries typically take on the counterparty risks and help resolve disputes. Dispute resolution in a distributed trust environment is a requirement that will rely on predicted arrangements.
Smart Contract Risk Considerations	
Business and regulatory	Smart Contracts should accurately represent business, economic, and legal arrangements defined between parties in the framework. The smart contracts that are defined on a blockchain network will apply in a consistent manner to all users across the network. Therefore, these smart contracts will have to be capable of exception handling, and the consequences of these exceptions in the form of a programmatic output on the blockchain framework will have to be tested across the universe of all other smart contracts within the network for adherence to business and legal arrangements and compliance with regulations.
Contract enforcement	Currently there is no legal precedent around the enforcement of a smart contract in lieu of a physical contract and there are no regulations governing smart contracts. The data on a blockchain framework is immutable, care should be taken to amend smart contracts to avoid breaches of existing regulation by acting on data from the past on the blockchain that are not within the statutory legal limits for a financial arrangement.
Legal liability	In a permissioned network, the legal liability remains unclear for an improper, erroneous, or a malicious administration of a smart contract resulting in a transaction with two or more entities on the network, causing assets to leave the network via those transacting entities.
Information security	Smart contracts may be susceptible to security breaches and improper administration. Participant entities or the network administrator will need a strong governance and change control process to deploy new or amend existing smart contracts. They will also need a robust incident management process to identify and respond to glitches in smart contract operations. Oracles are entities that exist outside the blockchain framework but feed data to the network, they may trigger the execution of the smart contracts within the network. The biggest risk to a blockchain framework may lie within these oracles as these may be subject to malicious attacks to corrupt the data being fed to the blockchain. This may cause a catastrophic domino effect across the entire network.



Governance is the process of identifying expectations, structure, and rules for participation. It is identifying the right stakeholders who will work together to plan, implement, monitor, and evaluate the project and initiatives. There are two governance frameworks that will comprise the governance plan for our project under the Smart Cities Challenge (SCC) initiative. The first will set the expectations, structure and rules for participation for the project implementation; and the second, for the ongoing operation and sustainability for the HealthSmart Technology.

The City of Airdrie (CoA) is formed under the *Municipal Government Act of Alberta*, providing municipalities with broad powers. A Municipal Council can provide services, facilities and other things that are necessary or desirable for all or a part of the municipality. Health falls into this category.

Through this enabling legislation, Airdrie City Council has committed to several health initiatives with a view to making Airdrie “Canada’s healthiest community.” To this end, City Council has supported several initiatives:

- City Council directed staff to enter into a grant agreement between the CoA and the Airdrie & Area Health Cooperative (AAHC).
 - In 2016, City Council provided a \$400,000 grant to the AAHC for health initiatives.
- In February 2018, City Council supported the submission of an application to the SCC in partnership with the AAHC, based on Airdrie becoming the

healthiest community in Canada.

- In August 2018, City Council directed staff to work with the AAHC to explore the role the CoA may play in furthering the initiatives of the AAHC.
- In November 2018, City Council endorsed partnering with the AAHC on the initiative to make Airdrie a Blue Zones community.
- In January 2019, City Council proclaimed 2019 as the Year of Healthy Living in Airdrie, that will be supported by a municipal communications plan.

The CoA has partnered with the AAHC.

The AAHC was incorporated under the *Cooperatives Act* in 2016 with the following mandate:

To protect, promote and restore the physical and mental well-being of the members and to facilitate reasonable access to health services without financial or other barriers by broadly addressing the SDOH (social, economic, physical, health and health care environments and a person’s individual characteristics and behaviours) specific to the members and their community (city of Airdrie and surrounding areas).

The Cooperative aims at providing a proactive, participative, interdisciplinary and integrated approach to health and health care by involving members, local government, local businesses, local employers, local institutions and not-for-profit organizations to ultimately improve the quality and delivery of health care services through the Cooperative and other entities

organized for that purpose including entities in which the Cooperative holds an interest.

Further, the Cooperative must at all times act in a manner that is consistent with the principles set forth in the *Canada Health Act* including the principles of accessibility and universality which promote equal access to all residents to publicly insured and publicly funded services.

Each organization brings a unique set of skills, expertise and knowledge to the table. As the CoA is not currently in the health or health care business, the expertise and leadership of the AAHC in this grass roots initiative is invaluable. Both the CoA and the AAHC are committed and ready to implement the COS as an integral piece in achieving our Challenge Statement of increasing healthy life expectancy by 3+ years in 5 years.

GOVERNANCE FRAMEWORK – IMPLEMENTATION

The CoA and the AAHC will enter into a formalized partnership agreement to ensure the completion and success of the SCC initiative. Although work has begun on a formalized partnership agreement, it will not be completed until such time as the SCC winners have been announced.

As outlined in Chapter 3: Project Management, the

governance structure for the implementation will follow a typical project methodology. There will be an Executive Sponsor from each organization – the Chief Administrative Officer for the CoA and the Chief Executive Officer for the AAHC. The Executive Sponsors sit on the SCC Steering Committee and are responsible for ensuring our program is in alignment with the SCC and the shared goals and expectations of the two parties. These shared goals and expectations will be outlined within the partnership agreement.

Overall program oversight and governance will be provided by the Steering Committee. The Steering Committee will be ultimately responsible for the success of the program. Steering Committee members will not be compensated for their time or work on the program.

Both parties will have equal say at the Steering Committee table, with each party selecting three members. The Steering Committee will operate under a collaborative decision-making model. In the event a collaborative decision cannot be attained, the Executive Sponsors will decide jointly. There will be an escalating alternative dispute resolution process included within the partnership agreement.

As the grant recipient, the CoA will assume fiscal responsibility for the program. A paid Program Manager will report directly to the Executive Sponsors

Table 5.1 identifies the risks with the partnership governance model.

Risk	Mitigation Strategy
Conflicting goals between the parties	Discussions, meetings and partnership agreement revisions will occur to ensure the shared goals, understanding and expectations between the parties are clearly documented within the partnership agreement.
Conflicting direction to program team members	Terms of reference for the Steering Committee will be prepared and clearly articulate the decision-making process and decision flow (Steering Committee to Program Manager to Project Manager to implementation team). The terms of reference will clearly articulate how program team members are to manage events that occur outside the agreed-upon flow.
Political interference	The CoA has formalized Council-Administration Information Protocols that outline how program team members are to manage inquiries/ direction from City Council.
Conflicting priorities	For the most part, conflicting priorities will not occur with the program team members as they will be hired specifically for the SCC project. Internal resources in both organizations, however, may experience conflicting priorities and capacity issues. It will be the role of the Executive Sponsor in each organization to ensure specialized internal resources can be accessed.

and be accountable for the overall program success. The Program Manager chairs the Steering Committee and establishes and maintains the program strategy and roadmap. This person aligns the program strategy with the shared goals and expectations established by the Executive Sponsors. The Program Manager provides regular status updates and escalates program risks, issues or decisions to the Steering Committee. The Program Manager will be responsible for the human resources required for the program and identifies, tracks and manages key metrics.

A paid Project Manager will report directly to the Program Manager and be accountable for the projects and work outlined within the project plan. The Project Manager will be accountable for project scope, identifying and mitigating risks, timelines / project schedule and budget. The Project Manager will lead a team of developers, business / data analysts and vendors in their technical work.

Various support resources and subject matter experts will be drawn from within the CoA and AAHC as required. These resources / experts will include technology, procurement, information governance, privacy, security, risk, finance, health, communications and engagement and will be compensated on an hourly basis.

GOVERNANCE FRAMEWORK - COMMUNITY OPERATING SYSTEM (COS)

As outlined in both Chapter 3: Project Management and Chapter 4: Technology, the governance model for

the community operating system is currently under review. Typically, successful open source platforms are governed under a foundation model. Early research has indicated foundations can be quite costly to establish. For this reason, funds have been set aside early in the project plan to research and determine the best governance model for the COS. The global collaboration of Hyperledger, hosted by the Linux Foundation, is one of the options that will be considered.

As outlined in Chapter 4: Technology, the COS will not house any personal or identifiable information and has been designed in such a way that the municipality will control access. Residents will access the COS through the MyAirdrie Portal. A single authentication will allow users to log in once and view their information in one location. This ensures that the municipality retains control over sensitive and personal login data, which is then subject to the *Freedom of Information and Protection of Privacy Act of Alberta*. For other municipalities in Canada, access will be controlled by the municipality and be governed by that municipality's privacy legislation.

The CoA has received letters of support from Premier of Alberta, the Minister of Alberta Economic Development and Trade and from the Minister of Health. These letters recognize the benefits that Airdrie's proposal will provide to its community and communities across Alberta and Canada.

A letter of support is included from AAHC and from Alberta Blue Cross. All letters may be found in the appendices.

Table 5.2 identifies risks in terms of governance of the COS.

Risk	Mitigation Strategy
Determination of detailed technology governance and sustainability beyond project implementation.	Incorporate into the project plan time and resources to explore the most appropriate governance model for the community operating system. The project team has identified the need for expertise in this area and strong legal advice.



BACKGROUND – PREVIOUS STAKEHOLDER ENGAGEMENT

The City of Airdrie (CoA) and the Airdrie & Area Health Cooperative (AAHC) have conducted various surveys and hosted stakeholder engagement sessions to gather feedback from Airdrie residents on health. This information has been used to develop the stakeholder engagement and communications approach.

CITIZEN SATISFACTION SURVEY

For the past four years, respondents to the CoA's annual satisfaction surveys have consistently identified health as one of the most important issues for Airdrie residents.

AIRDRIE & AREA HEALTH COOPERATIVE STAKEHOLDER ENGAGEMENT

The AAHC sponsored a stakeholder engagement process from Fall 2016 to Winter 2018, engage residents on health and health care. This included face-to-face sessions with hundreds of individual and organizations and two community events – one for the top 80 community leaders and one for health and health care leaders. These sessions informed a report to the community, *Together for Tomorrow*, April 2018 (http://airdrieareahealthcoop.ca/pdfs/2018_04_18_Community_Report.pdf).

Participants in the stakeholder engagement processes identified several themes, including the following related to the HealthSmart Airdrie project:

- Access to their personal health related information.
- Need for health-related information and access to services and resources through digital, online technology.
- Sharing of information, they choose to share, between health providers.
- Ability to manage and track their health through technology.

This information was used to shape our initial proposal and our finalist proposal for the Smart Cities Challenge.

As a follow up to the report, a four-day stakeholder engagement session was held in May 2018 to examine the potential of developing a partnership with Blue Zones. Over 600 individuals participated and provided support for moving forward with Blue Zones. Plans were formalized with Blue Zones in February for implementation of “Healthiest Airdrie, powered by a Blue Zones Collaborative.”

PRE-PROPOSAL STAKEHOLDER ENGAGEMENT

The CoA and AAHC developed and implemented a communications and stakeholder engagement plan to build awareness of the Smart Cities Challenge proposal based on our eight selected social determinants of health (SDOH), and HealthSmart Airdrie. This included the announcement of being selected as a finalist in the Smart Cities Challenge, stakeholder engagement at Airdrie Fest, the development of the

HealthSmart Airdrie website, an open house on December 6, ongoing promotion of HealthSmart Airdrie through social media and radio, the Mayor's health blog (<http://www.mayorhealthblog.ca>), wellness challenges related to the SDOH and a citizen survey.

What we heard from citizens during this stakeholder engagement is that they are excited about the HealthSmart Airdrie initiative and how it can help support their health. Of the over 104 people that answered the survey, most respondents mentioned mental, physical and spiritual when asked about wellness. When we dug down into the SDOH, friends, family, community, food and our surroundings were the top three most important.

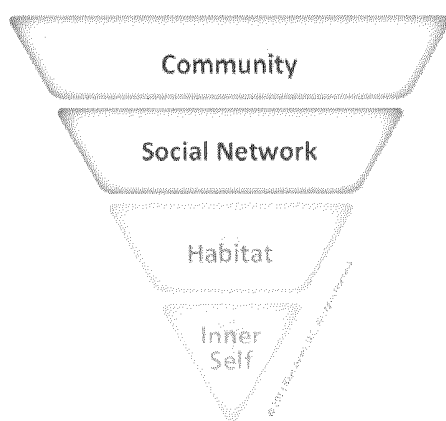


Figure 6.1 shows community, social network, habitat and inner self connecting in the Blue Zones program.

This limited stakeholder engagement has as told us that we need to continue to focus on building awareness about HealthSmart Airdrie and what we are trying to achieve, and not move to asking them to take action too quickly (see Table 6.1 Five Stages of Communications). This includes providing residents with information about the timing and phases for the project, sustaining communications throughout and providing opportunities for residents to get involved that are simple and easy.

APPROACH TO STAKEHOLDER ENGAGEMENT AND COMMUNICATIONS

CoA and the AAHC know that decisions are improved through stakeholder engagement of citizens and stakeholder groups and is committed to involving the public on issues that affect our community. We believe public participation will build stronger relationships

with our residents, increase public knowledge, increase transparency, and ultimately lead to better decisions. We will develop an integrated stakeholder engagement and communications strategy and plan that ensures citizens are informed, consulted and involved throughout the entire development process.

COORDINATION OF STAKEHOLDER ENGAGEMENT

Our stakeholder engagement related to health with include two processes: 1. HealthSmart Airdrie stakeholder engagement led by the CoA; and 2. The Community Health Engagement using Blue Zones methodology led by AAHC. These two processes will be coordinated, and stakeholder engagement activities leveraged where possible, and information shared between both projects.

A brief summary of the Community Health Engagement is provided below to provide additional context, with the details for the HealthSmart Airdrie stakeholder engagement and communications following this information.

The purpose of the Community Health Engagement Project is to lead and ignite a community-by-community well-being transformation, where people live and work together for a better life.

The approach used by Blue Zones Project is unique because it takes a systematic environmental approach to improving well-being through policy, building design, social networks and the built environment. By optimizing our environment – those settings where we live, work, and play, which influence our behaviour – we can make the healthy choice the easy choice so that we naturally adopt healthy behaviours. (Source: *Becoming a Blue Zones Community Handout* – Blue Zones Project). We will be the first city in Canada to adopt Blue Zones and will be developing a “Canadian version” of the project. We will be hiring a local team of five and will receive world class training from the Blue Zones Project team to create local capacity and sustainability.

HEALTHSMART AIRDRIE STAKEHOLDER ENGAGEMENT

BEST PRACTICES

The CoA follows best practices as outlined by the International Association of Public Participation (IAP2),

including the use of the Public Participation Spectrum and Code of Ethics in its Public Participation Policy. Specifically, for the COS, access and usability, residents and stakeholders will be engaged at the Involve level of the Spectrum (Figure 6.2). We will identify and work with residents and stakeholder groups to identify their ideas and concerns and will work to incorporate them or address these in the development of the technology.

Our approach to stakeholder engagement will be iterative, where input will be sought through each phase of implementation. We will work with internal and external stakeholders in both the design and evaluation of the technology, ensuring each version of the technology is inclusive of citizen feedback, addresses their concerns, and meets citizens' expressed needs.

Our stakeholder engagement and communications will be based on the following core principles:

- a strategy and plan focused on the audience and stakeholders first and foremost and that connects to their values and what matters to them.
- an inclusive process that aims to identify and include all stakeholders to understand diversity of people and perspectives and needs, and seeks to understand different cultural values around the SDOH.
- transparent, plain language and two-way communications and stakeholder engagement that educates and creates awareness about the technology, gathers feedback, demonstrates how input was used, and provides rationale for why any input was not used.
- an accessible format where stakeholder engagement activities can be easily accessed by everyone in the community. This means physical accessibility (such as providing online, in-person and in-situ activities)

Table 6.1 provides an overview of the five stages of communications and how they relate to HealthSmart Airdrie.

	Awareness	Understanding	Buy-in	Action	Sustainment
Audience	The audience may be unaware or aware but not interested.	The audience may be aware of how to be healthier but have not taken action to live healthier.	The audience has decided they need to do something but has not taken action yet.	The audience takes action and needs reinforcement.	The audience is living a healthy lifestyle related to the SDOH and makes healthy choices.
Communications Strategies	<ul style="list-style-type: none"> • Build awareness through communications channels that appeal to them and their interests. • Meet them where they are at (knowledge wise) and where they are having conversations (location). • Ask them questions about health, provide them with the information they are interested in and begin to discuss the benefits of healthy living. • Engage influencers and community champions. 	<ul style="list-style-type: none"> • Provide them with information about health and the benefits of healthy living. • Provide them with easy access to information, tools and resources to help them to further understand how to become healthier. • Focus on issues people care about and how they can think about it in their daily lives. • Leverage events. 	<ul style="list-style-type: none"> • Show them the benefits of the action now (extra three years of healthy living) and how easy it is for them to take. • Show them how to use the tools and resources and how easy it is to live a healthier life. • Provide them with personalized ways to become healthier. • Provide them with training and learning opportunities using the technology. 	<ul style="list-style-type: none"> • Show them the benefits of their action and how they can track their journey. • Help them to develop connections with other residents to build support networks. • Provide them with ways to share their story to support others to live healthier lives. 	<ul style="list-style-type: none"> • Sustain their actions by providing them with new ways to participate, access to more resources and tools. • Show them how their participation is making a difference personally and in their community. • Incorporate lessons learned into future planning. • Ongoing communications and updates.

as well as ensuring everyone has an opportunity to learn about and participate in the development and evaluation of the technology, regardless of language, access to technology or other barriers.

- show residents how they can be involved and use the technology and offer hands-on, interactive experiences.

The CoA and AAHC are asking people to change their behaviour to become healthier and focus on the SDOH. We will frame communications with this focus and ensure we understand where an audience is at with what they think, feel, know or are doing with regards to the technology, framed within the five stages of communications and our communications principles.

FIVE STAGES OF COMMUNICATIONS

What stage an audience is at will be determined by how much they know about HealthSmart Airdrie, the information they would like to have access to and opportunities and barriers to using the technology. Table 6.1 provides the five stages of communications.

STAKEHOLDER ANALYSIS SUMMARY

We have completed an initial identification and analysis of stakeholders for HealthSmart Airdrie. As part of our planning process during project implementation, we will conduct a more detailed assessment, contact each stakeholder / group directly to discuss their interests and specific needs, and ensure we haven't missed any stakeholders.

Table 6.2 provides a summary of the stakeholders and strategies for stakeholder engagement and communications.

Stakeholder	Strategies
Airdrie and Area Residents	
General - Includes a demographic mix ranging in age, socio-economic status, ethnicity and interests. - Resident interest, influence and impact are medium to high. Below is a break down of specific resident stakeholder groups.	- Provide a variety of stakeholder engagement activities that will appeal to different demographics. - Provide online stakeholder engagement opportunities through each phase, making it easy for people who are connected to participate. - Provide links to the online tools from the CoA's and AAHC's websites where residents already go for information. Leverage partner sites going forward.
Youth - may not participate in a general stakeholder engagement session open to all residents.	- Provide youth with an opportunity to participate where they hang out. - Leverage the CoA's youth advisory group to offer connections.
New to Canada and English as a second language - may not participate as asking for help or talking about needs may be a stigma in their culture. English may not be their first language and may be a barrier to participation.	- Work with community / culture champions and established service organizations to make connections and meet them where they are located. - Provide translators at events and materials in multiple languages to ensure residents can understand what is being asked and offer input.
Indigenous - may not participate in stakeholder engagement activities because of literacy and education, cultural differences, racism / discrimination / stereotypes, self-esteem, poverty and poor housing, lack of transportation or child care.	- Work with community / culture champions and established service organization to make connections. - Provide them with easy and accessible opportunities to participate with different options, in their community.

Stakeholder	Strategies
Airdrie and Area Residents	
Seniors – may not participate in stakeholder engagement activities due to mobility, lack of knowledge or access to technology and may not understand the benefits of or why they should make changes at this stage to live a healthier life (apathy).	<ul style="list-style-type: none"> - Provide them with easy and accessible ways to provide input – including both paper and technology-based methods. - Build an understanding of how easy the technology will be to use (show them) and the benefits to living a healthier life style now. - Include in-person activities throughout the project as seniors often prefer face-to-face conversation and the ability to ask questions.
Single parents may require child care in order to participate or may not participate because of the cost or time commitment.	<ul style="list-style-type: none"> - Offer this group an opportunity to participate with their family and include activities for their children in a safe, child-friendly environment, at a time that works for them. This means hosting an open house outside of dinner hours, including information in promotions about accommodating children and hosting pop-ups in family-friendly venues such as libraries and rec centres.
Women – women make the majority of consumer decisions. Research shows that diversity of thought and perspective leads to better performance, better business strategies and stronger organizations as a whole. Women often bring different perspectives and therefore can help eliminate blind spots.	<ul style="list-style-type: none"> - Include a gender lens to stakeholder engagement activities and consider gender-based factors to gather input. - Offer specific opportunities for women to get involved in the design and testing of the technology, e.g., women focused stakeholder engagement sessions. - Apply a gender lens when seeking partnerships to develop and build the technology where possible.
People with mental health issues – may not participate for a variety of reasons because of a lack of awareness, ability, and/or anxiety about participating and apathy.	<ul style="list-style-type: none"> - Engage established service organizations to determine strategies to best engage this group and make connections. - Provide a variety of ways to participate so there are activities that are comfortable and encouraging.
Homeless – may not participate because of discrimination, lack of transportation, lack of access to technology and may not understand how HealthSmart Airdrie can benefit them.	<ul style="list-style-type: none"> - Provide them with easy and accessible ways to participate, show them potential opportunities for how they can use and access the technology, and how participation will benefit them. - Work with community champions and established service organizations to make connections. - Meet them where they are using stakeholder engagement activities such as Streefer surveys, pop-up events, interviews and use of public kiosks.
People who don't have access to technology/no access to data or Wi-Fi – may not participate because of lack of access to technology and lack of understanding that they can participate	<ul style="list-style-type: none"> - Provide them with information about how they can participate using City-owned technology and in-person tools and let them know how participation will benefit them. - Ensure communications and promotions are not only digital such as roadside signs, posters, TV and radio ads.

Stakeholder	Strategies
Organizations	
<p>Community Organizations Includes faith-based, youth, senior, crisis / addiction, health and wellness, housing, Indigenous, immigrant, financial, recreation, arts and associations / society / clubs and are either not-for-profit, non-profit or social enterprises. This group also includes support organizations in Calgary that Airdrie and area residents rely upon. These organizations provide residents with the resources and supports they need, often free or for a small fee. Often these groups have limited time and resources.</p> <p>Their impact and interest are high, influence medium to high.</p>	<ul style="list-style-type: none"> - Provide them with information about ways that they can get involved and how participating can benefit their organizations and the people that they support. - Provide workshops during the business hours to accommodate representatives of these organizations.
<p>Local/Provincial Businesses Includes retail, health and wellness, restaurants and providers of services such as financial institutions. These companies provide paid services to residents.</p> <p>Some of the business may be interested in becoming a partner in HealthSmart Airdrie.</p> <p>Their impact and influence are medium and interest medium to high.</p>	<ul style="list-style-type: none"> - Provide them with information about how they can get involved and be part of HealthSmart Airdrie. - Provide a variety of ways to share input to accommodate different interests and schedules.
<p>Educational Institutions Includes elementary to high school, post secondary and adult education.</p> <p>Their impact and influence are high and interest medium to high.</p>	<ul style="list-style-type: none"> - Provide them with information about how education fits within the SDOH, the technology and how participating can benefit their organization and help the people they support. - Provide a variety of ways to share input to accommodate different interests and schedules.
<p>Alberta Health Services (AHS) Provides health care to residents and is a partner with the AAHC in developing the community health information resource platform.</p> <p>AHS impact and influence are high and interest medium.</p>	<ul style="list-style-type: none"> - Provide them with an opportunity to partner in the project. To respect the unique concerns AHS might have, provide opportunities to talk to the project team outside of public events.
<p>Primary Care Networks, Physicians and Health Providers Highland PCN supports primary health care in the community with strategies and resources for health that support physician practices. Airdrie also has a range of community health and health care professionals, typical of any community.</p> <p>Their impact and influence are high and interest medium to high.</p>	<ul style="list-style-type: none"> - Provide them with information about how they can get involved and the benefits for them and their patients. - Provide multiple ways to share input and make stakeholder engagement easily accessible to accommodate shift workers and demanding schedules. To respect the unique concerns this group may have, provide opportunities to talk to the project team outside of public events.
<p>Surrounding Municipalities Includes the MD of Rocky View, Balzac and The City of Calgary.</p> <p>Their impact and interest are medium and their influence low.</p>	<ul style="list-style-type: none"> - Provide them with information about the project, ask them to be involved, keep them informed and offer opportunities for partnership. - Offer opportunities for one-on-one interviews and opportunities to talk to the project team outside of public events to accommodate out-of-town representatives.

Stakeholder	Strategies
Organizations	
Provincial Government Their impact, influence and interest are medium.	<ul style="list-style-type: none"> - Provide them with information about the project, keep them informed and give them opportunities to participate. To respect the unique concerns the Alberta Government might have, provide opportunities to talk to the project team outside of public events.
Airdrie City Council Their impact, influence and interest are high.	<ul style="list-style-type: none"> - Provide them with information about the project, ask them for their help in getting citizens excited / participating and provide them opportunities to get involved. To respect the unique concerns the Airdrie City Council might have, provide opportunities to talk to the project team outside of public events. - Invite them to participate in public events so they can hear first hand what is important to residents about the technology.
Partners and Sponsors	
City of Airdrie The CoA is a partner in the HealthSmart Airdrie initiative. It also employs 630 Airdrie and areas residents who may work on part of this program and may be asked by their family and neighbours about it or want to participate. Employee interest, influence and impact are medium to high.	<ul style="list-style-type: none"> - Provide CoA employees with information about the project, how the CoA is involved, how they can get involve and the benefits of being involved, and information to help answer questions. - Invite them to attend public events to provide input from both an employee and resident perspective.
Airdrie & Area Health Cooperative The AAHC is a partner in the HealthSmart Airdrie initiative. It also employs eight Airdrie and areas residents who may work on part of this program, be asked by their family and neighbours about it, or want to participate. The AAHC also has members who may be interested in HealthSmart Airdrie. Employee interest, influence and impact are medium to high.	<ul style="list-style-type: none"> - Provide AAHC employees with information about the project, how the AAHC is involved, how they can get involve and the benefits of being involved, and information to help answer questions. - Provide them with information about the project and the benefits of getting involved.
Potential sponsors Organizations that are willing to provide in-kind or financial support to the project. Their impact is medium, influence low and interest medium to high.	<ul style="list-style-type: none"> - Provide them with information about opportunities for sponsorship that are unique to their organization and how sponsorship can support and benefit their organization.
Potential partners Organizations that are looking to take a leadership role in the development, use, promotion, integration, etc. of the HealthSmart Technology. Their impact, influence and interest is high.	<ul style="list-style-type: none"> - Reach out to develop partnerships with aligned organizations. - Provide them with information about partnership opportunities that are unique to their organization and how sponsorship can support and benefit their organization.

STAKEHOLDER ENGAGEMENT AND COMMUNICATIONS RISKS

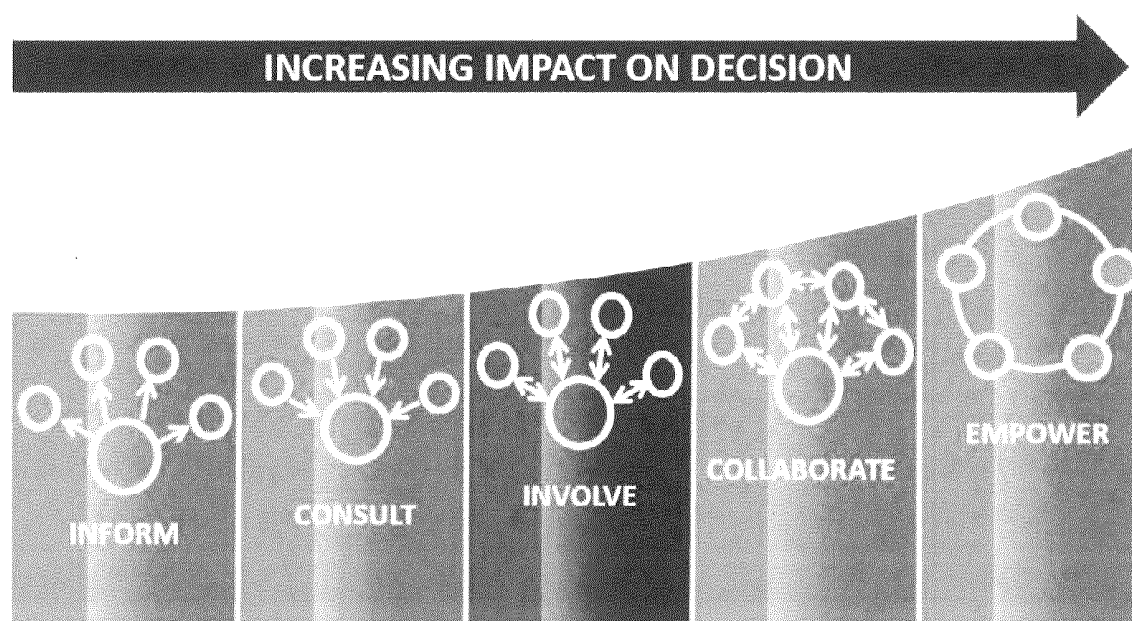
Table 6.3 identifies several stakeholder engagement and communications risks. For the purposes of this proposal, we have only included the risks that ranked "high" in our evaluation criteria.

Risk	Mitigation Strategy
<p>Not identifying all the stakeholders / Not reaching all the stakeholders.</p> <p>Missed stakeholder groups can cause project delays, the perception of lack of transparency and stakeholder engagement, and lack of gathering the data required to build a technology that meets the needs of residents and stakeholder groups.</p>	<ul style="list-style-type: none"> - Seek input from identified stakeholders about who else should be involved and included as part of the stakeholder identification task. - Ask stakeholders how they want to receive communication and how they want to be engaged, including channels / activities location and timing as part of the stakeholder analysis
<p>Input not used in the development of the technology.</p> <p>Resident want to feel heard and will only use a technology that they feel like they had a part in creating. Also, the technology needs to meet the needs of the residents and show how it is meeting their needs.</p> <p>Residents may feel their participation was a waste of time and may not support the technology. This may also lead to decrease in participation in future project and may lead to a distrust of the HealthSmart Airdrie partners.</p>	<ul style="list-style-type: none"> - Ensure citizens understand how the input they provide will be used. - Report back on the input that was gathered, how the input was used to influence the design of the technology and, if input was not used, why it was not used in the development of the technology.
<p>Keeping sustained interest throughout implementation and beyond / stakeholder burn out.</p> <p>HealthSmart Airdrie is a multi-year project that does not "come to life" for citizens until two years into the project and is not fully built for five years. Stakeholders may lose interest or not "believe" the project is going to be implemented</p>	<ul style="list-style-type: none"> - Build an understanding of the length of the project, phases and when they will have an opportunity to get involved. - Provide opportunities for meaningful stakeholder engagement and be strategic in the use of citizen's time to offer feedback. - Ensure communications is sustained between stakeholder engagement events. - Offer citizens ways to get involved that connects to the technology and offers them health-related benefits. - Develop a shared communication and stakeholder engagement plan with the Blue Zones Collaborative by integrating information and leveraging stakeholder engagement where possible.
<p>Reputation of the CoA Reputation of the AAHC.</p> <p>Reputational issues may come up in a variety of ways related to the money being spent, the technology not working, perceptions about lack of transparency, privacy, security and/or stakeholder engagement, lack of connecting to all platforms, public promises not kept, alignment around messaging, etc.</p>	<ul style="list-style-type: none"> - Ensure the CoA and AAHC are aligned in their messaging and communications to stakeholders. - Create agreement about who is a project spokesperson. - Provide key messages and coaching to project champions. - Ensure project team is aware of stakeholder engagement and communications plans and timing.

Risk	Mitigation Strategy
<p>Confusion / lack of coordination between programs – HealthSmart Airdrie, Blue Zones, Health Park, Needs-based networks, etc.</p> <p>Citizens may not understand or may be concerned with the multiple projects connected to HealthSmart Airdrie and may feel like the approach to stakeholder engagement and communications is uncoordinated and repetitive, or the stakeholder engagement efforts may cause participant fatigue.</p>	<ul style="list-style-type: none"> - Ensure stakeholder engagement and communications of related projects is coordinated and aligned where possible. - Leverage events between projects. - Ensure the stakeholder engagement and communications representatives from each project are kept informed about plans. - Provide citizens with an understanding of how the projects are connected.
<p>Lack of trust of the CoA / lack of trust of the AAHC.</p> <p>Citizens may feel like they are “being watched” or their data is being used for alternative purposes.</p> <p>They may have concerns with the CoA and/or AAHC’s ability to develop a technology of this scale.</p> <p>They may have had an experience with the and/or AAHC that has caused distrust.</p>	<ul style="list-style-type: none"> - Ensure citizens understand the breadth and scope of the project, the use of data and security and privacy. - Provide citizens with an opportunity to express their concerns, provide input and be part of design of the technology and what they need to be comfortable to use it. - Work with community champions to help communicate about the project and its benefits. - Address specific historical concerns by listening, reflecting, asking and answering when requested.
<p>Inability to motivate end users to provide input on the technology / lack of interest / resistance to change.</p> <p>Citizens may be apathetic towards the project, may not have time to participate and/or may not be interested.</p>	<ul style="list-style-type: none"> - Provide citizens with multiple ways to participate, in a variety of ways and locations. - Provide them with information about the benefits of participating. - Show them how their input will be used and how their input has been used to design the technology.

Figure 6.2 shows the IAP2 spectrum of public participation, inform, consult, involve, collaborate and empower. Our level for SCC is involve.

IAP2 SPECTRUM OF PUBLIC PARTICIPATION



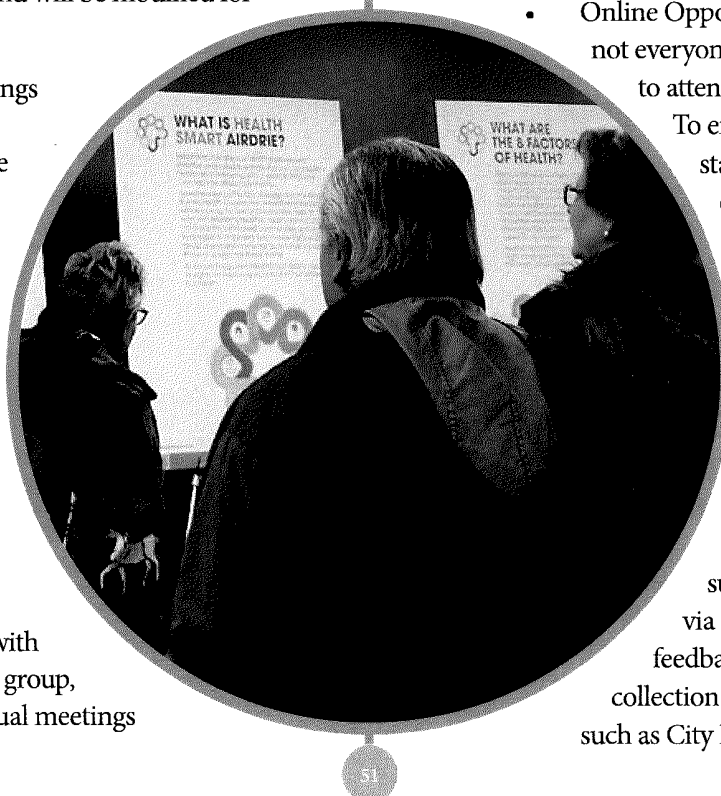
STAKEHOLDER ENGAGEMENT

Blue Zones has a stakeholder engagement process to gather input from residents and a process for engaging / involving the community to focus on changing behaviours and participate in building a culture of health. The stakeholder engagement for HealthSmart Airdrie is specific to gathering input from residents about the technology, while at the same time, building awareness about the SDOH. Stakeholder engagement for HealthSmart Airdrie will be coordinated with the stakeholder engagement activities for Blue Zones including leveraging and scheduling of the events where possible.

STAKEHOLDER ENGAGEMENT ACTIVITIES

A variety of stakeholder engagement activities will be used throughout the implementation of HealthSmart Technology to provide residents and stakeholders multiple ways and opportunities to participate, in a manner that best suits their preferences. The tools are based on what has worked well in Airdrie in the past and new tools to ensure all stakeholders have an opportunity to provide input. We will offer a mix of in-person, in-situ and online opportunities that offer face-to-face and technology-based ways to have a conversation, learn about other's ideas and offer feedback. Below is a sample list of key activities we will use to engage residents and will be modified for each stakeholder group.

- Key Stakeholder Meetings / Workshops – in each phase of the project, we will bring together representatives of the appropriate key stakeholder groups (for that phase) to give them an opportunity to provide input, recognizing their involvement and concerns may be different than those of the public. Where possible we will meet with these stakeholders as a group, however some individual meetings



may be needed. Key stakeholders that we will include in these meetings are agencies, community organizations, educational institutions, Alberta Health Services, Primary Care Networks, the CoA, AAHC, Alberta government, and regional municipalities.

- Open House – we will host an open house in Phase 1 of the stakeholder engagement process that will include a graphic recorder to help illustrate stakeholders and residents' vision for the technology and its outcomes. A summary report of the feedback received will be provided via the HealthSmart Airdrie website.
- Pop-Up Events – best practice and research indicate stakeholders are more likely to participate if we were to go to them. We will provide residents an opportunity to have a conversation with the project team at popular gathering places in Airdrie, such as coffee shops, malls, theatres, parks, the library, Genesis Place (recreation facility) and grocery stores.
- Streeter Surveys / Interviews – this technique will be used to engage hard-to-reach individuals – such as vulnerable populations – and provide an opportunity for people out and about to talk to team members doing interviews on the street.
- Online Opportunities – we know not everyone can attend, or wants to attend, a public open house. To ensure all residents and stakeholders have the same opportunity to provide input, we will mirror our face-to-face activities online. Residents can view the same materials online, then provide their input directly through an online tool hosted on HealthSmartAirdrie.ca, submit a feedback form via email, or they can leave feedback forms at a designated collection spots in their community such as City Hall or Genesis Place.

COMMUNICATIONS TOOLS

Table 6.4 outlines a list of sample communications tools that we will use throughout the various phases of the project.

City Connections – newspaper insert	Highway electronic billboard	Radio ads
Mayor's Radio Show – every Tuesday	Signage at partnering locations	TV – interstitials
Airdrie Now newsletter – City business	Signage at City facilities	Media launch
Airdrie Today – City newsletter	Videos	Media stories
HealthSmart Airdrie social media	HealthSmart Moment (radio, print)	Celebration / launch event for community
City of Airdrie social media	Infographics	Incentive campaign for participation
City Council social media	Email updates	Blog / articles
AAHC Social Media	App / dashboard notifications	Wellness challenges
	Influencer messaging	HealthSmart Podcast
	Transit advertising/bus wrap	

- Kiosks – installed across the city where those who are not digitally connected or are unsure about how to use technology can use City-owned technology to provide their input, with guidance from on-site personnel.
- Instastory Polls – social media will be used to promote opportunities for stakeholder engagement, communicate important messages, and provide quick polls that will help us to understand our residents needs.
- What we Heard – a report back about what we heard in each phase of stakeholder engagement will be sent to all participants and will be made available online.

EVALUATION

A successful stakeholder engagement plan ensures early identification of issues of concern, areas of conflict and opportunities for the development of a technology that truly meets the needs of the community. It also ensures stakeholder time is used efficiently, and that the input received has been incorporated as much as possible; or if it hasn't been, stakeholders understand why not.

The communications activities ensure stakeholders are provided the information needed to participate in a meaningful way, to understand and to be aware of the opportunities available for providing input and to receive information that is both clear and relevant to them.

Communication and stakeholder engagement activities will be measured throughout this project using tools such as feedback forms, online comment opportunities and by tracking against the schedule and goals. Measurements will indicate whether stakeholders understand the information that is being presented, whether enough information on the project has been provided in order to participate in a meaningful way, if participants can see how their input has been used, and if not why not, and whether the activities they participate in are perceived to be valuable to them. The plan and schedule may be revised based on evaluation results.

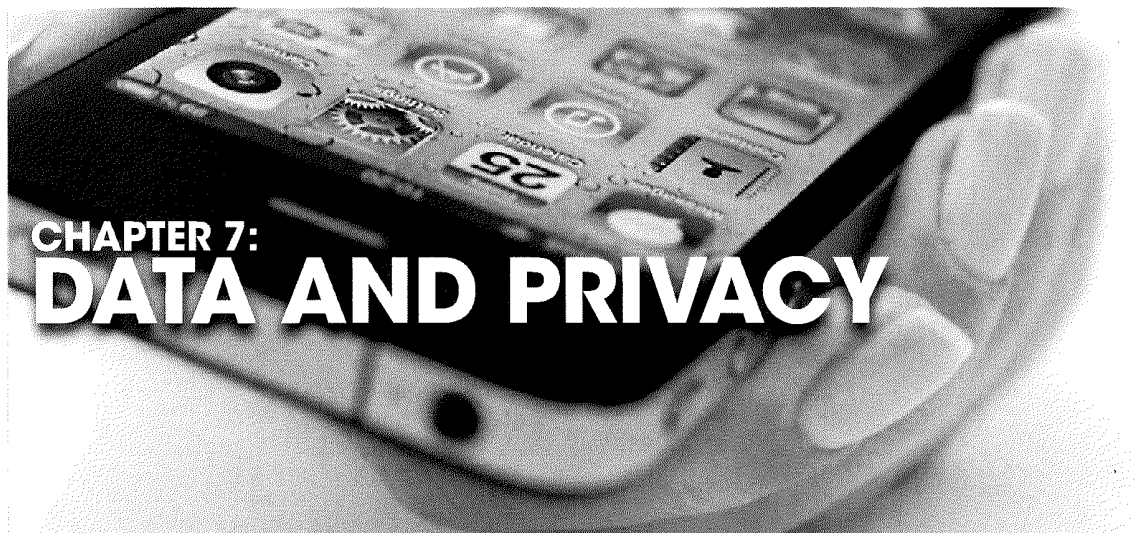
STAKEHOLDER ENGAGEMENT AND COMMUNICATIONS PLAN OVERVIEW

Table 6.5 provides an overview of potential stakeholder engagement and communication plan phases. Based on the stakeholder analysis and confirmation of project timing, this plan will be updated and developed into a detailed workplan.

	Planning – Stakeholder Assessment and Plan	Phase 1 – Visioning and Ideas for the COS	Phase 2 – Service Inventory	Phase 3 – Accessibility and Usability for MyAirdrie Portal, mobile apps, kiosks	Phase 4 – Evaluation and ongoing Sustainment
Objectives	<ul style="list-style-type: none"> - Develop a comprehensive stakeholder engagement strategy that identifies all stakeholders and how they will be meaningfully engaged throughout the project. - Identify potential risks and mitigation strategies. - Include communications strategies and tactics to support the stakeholder engagement. 	<ul style="list-style-type: none"> - Generate awareness about the project, the opportunities to provide input and an understanding of how input will be used. - Gather feedback on the stakeholder engagement plan. - Gather input from stakeholders and residents to build a vision for what the technology can include and how it can benefit and meet the needs of Airdrie and area residents - Ensuring we capture everyone's ideas. 	<ul style="list-style-type: none"> - Share how input from Phase 1 was used and if input was not used and why not. - Gather input from service providers about how they would like to be involved in the technology and the services they can offer. - Gather input from residents about the types of services they would like to see included in the technology. 	<ul style="list-style-type: none"> - Share how input was used Phase 2, and if input was not used and why not. - Generate ideas about the COS dashboard / Portal / mobile apps / kiosk design, usability, functionality and access to the technology. - Ask citizens to test the technology and provide feedback on functionality. 	<ul style="list-style-type: none"> - Evaluate citizen understanding of the project and outcomes. - Seek feedback on the stakeholder engagement process and communications. - Evaluate citizen use of and access to the technology. - Identify lessons learned to be applied to future phases and projects, and technology upgrades.
Strategy	<ul style="list-style-type: none"> - Engage key stakeholders and community leaders in the development of the plan. - Share the draft plan with all stakeholders to solicit their feedback in Phase 1. 	<ul style="list-style-type: none"> - Provide a wide variety of opportunities in many locations to understand the opportunities and benefits the technology will have. - Use input from this phase to assist in finalizing the stakeholder engagement and communication plan to best suit stakeholder needs for information and participation. 	<ul style="list-style-type: none"> - Engage residents to understand what providers and services they would like access to through the technology. - Engage service providers to gauge their interest in connecting to the technology, the type of information and services they can offer, and what, if any, applications they currently work with. 	<ul style="list-style-type: none"> - Engage stakeholders to understand priorities around function and sequencing and solicit innovative ideas such as gamification opportunities. - Ask residents to test the technology's functionality and usability and provide feedback. 	<ul style="list-style-type: none"> - Seek feedback on how the technology is working - what is working well, what isn't, and ideas for how it can be improved. - Evaluate the stakeholder engagement process to develop lessons learned that will improve future projects.

	Planning - Stakeholder Assessment and Plan	Phase 1 - Visioning and Ideas for the COS	Phase 2 - Service Inventory	Phase 3 - Accessibility and Usability for MyAirdrie Portal, mobile apps, kiosks	Phase 4 - Evaluation and ongoing Sustainment
Activities	Key stakeholder meetings/workshops – these will be used to generate ideas and solicit feedback on the draft stakeholder engagement and communication plan	<ul style="list-style-type: none"> - Open House - Key stakeholder meetings / workshops and interviews - Streeter surveys / interviews - Pop-ups – locations will include a mall, theatre, Genesis Place (recreation centre), library, high school, park - Online tool + kiosks at popular city locations - Instastories (polling) - Ongoing communications 	<ul style="list-style-type: none"> - Workshops for service providers - Interviews with service providers - Online tool + kiosks at popular city locations. One potential method of collecting input is asking residents to share photos or screenshots of their favourite service providers via Instagram or an online platform such as Photovoice to create a visual inventory of local providers. - Pop-ups - Ongoing communications 	<ul style="list-style-type: none"> - Design Workshops - with key stakeholder groups and residents to design their own dashboard and share their ideas. - Online – feedback form following testing of the technology - Kiosks will be set up with the technology for testing. A survey available on kiosk to collect feedback. - Pop-ups - Ongoing communications 	<ul style="list-style-type: none"> - Online evaluation survey will be available on HealthSmart Airdrie site and at kiosks around the city - Instastories (polling) - Streeter surveys to solicit feedback from those who are not connected - Ongoing communications





CHAPTER 7: DATA AND PRIVACY

The Smart Cities Challenge (SCC) is being implemented under a partnership governance model between the City of Airdrie (CoA) and the Airdrie & Area Health Cooperative (AAHC) as outlined in Chapter 5: Governance. The CoA and the AAHC recognize the various legislative / regulatory requirements surrounding the privacy of information. As the CoA is held to the higher standard with respect to privacy, the implementation phase will be managed under the *Freedom of Information and Protection of Privacy Act of Alberta*. For the purposes of the Act, the CoA will be the custodian of information. Where required, *Alberta's Health Information Act* and other relevant federal and provincial legislation will be met.

PRELIMINARY PRIVACY IMPACT ASSESSMENT (PIA)

A Preliminary Privacy Impact Assessment has been completed and forwarded to the Office of the Information and Privacy Commissioner of Alberta (OIPC). We received initial feedback as outlined in the attached letter and have re-submitted the preliminary PIA in accordance with that feedback. Further discussions will need to occur prior to development. The CoA and AAHC are committed to working with the OIPC throughout development of the HealthSmart Technology. The preliminary PIA has shown that there is work needed to be completed in terms of formalizing specific policies and processes prior to any development work on the SCC program commencing. The CoA has committed to complete this work prior to year end.

PERSONAL INFORMATION PROTECTION AND ELECTRONIC DOCUMENTS ACT (PIPEDA)

Attached to the PIA is a PIPEDA self-assessment that demonstrates Airdrie's compliance to federal legislation. As outlined above, there are some underlying policies and processes that have not yet been formalized at the CoA.

PARTNERS

The SCC project will be leveraged by all in the community. Aside from the main partnership between the CoA and AAHC, a series of partnerships will be created to share information ultimately breaking down information silos. For any partnership to be successful, there will need to be trust that information will be used responsibly, and the regulation of data, privacy, and security will be required throughout implementation and into the future. There will also need to be transparency as to how data is used and how it is protected, and users will need to have the tools to be able to control their own data and engagement with jointly generated content.

Strong partnerships can attract additional interest, investment and participation from other companies, governments, agencies and non-profits and can show and encourage future collaboration.

OUR APPROACH TO PARTNERS

It is through the strength of partnerships that HealthSmart Airdrie will be a success. We will:

- Identify private, public and non-profit partners.
- Involve everyone from the beginning.
- Articulate the relationships between the partners
 - How do they or how can they support each other given our Challenge Statement to increase healthy life expectancy by 3+ years over 5 years? What do the partners have in common?
- Identify win-wins for the partners – What is the value proposition? Why would a partnership be beneficial? What are the potential partnerships?
- Identify expectations and requirements of the partnerships. Establish proper agreements, protocols and privacy requirements. Ensure alignment with vision, goals and objectives of the SCC.
- Establish formal agreements and accountability structures, including timelines, term and financial responsibilities.
- Establish a medium for collaboration and oversight
 - we want to be able to establish a system of collaboration across all partners.
- Determine the investment model – Who pays for what and on what terms?
- Start small and early and build trust.

KNOWLEDGE SHARING

More knowledge gives rise to better decisions. To keep innovating and keep partnerships alive, it is necessary to share knowledge with everyone involved, including citizens. Our project will be a central clearinghouse for connecting people, creating social cohesion and enabling sustained economic growth through knowledge.

A knowledge-based city requires that each citizen takes responsibility for objectives, contributions to the city and for behaviour. This implies that all citizens are stakeholders of the city and have been provided opportunity for consent and transfer of knowledge. Knowledge management plays an important role in nurturing and building relationships and optimizing the flow of information.

OUR APPROACH TO KNOWLEDGE SHARING

Our approach to knowledge sharing will be to

- Establish a knowledge management strategy – knowledge sharing and a formalized plan for how information will be shared and protected are vital.
- Identify and define approaches for utilizing information to gather knowledge – Information can be explicit (extracted from data that flows as a result of the smart city) or tacit (generalized data about citizens and stakeholders). Knowledge is gained through a combination of both.
- Develop a clear stakeholder engagement and inclusion strategy for all stakeholders and citizens
 - knowledge becomes stronger with more involvement. A good stakeholder engagement strategy will maximize the ability to receive applicable information to increase knowledge.

DATA

Data is “factual information (e.g., measurements or statistics) used as a basis for reasoning, discussion, or calculation” according to the Merriam-Webster dictionary. It has been referred to as the new currency or new fuel and is integral to HealthSmart Airdrie project and its users’ decision-making ability. Data allows users to stay on top of trends, answer problems, and analyze new insights. Relevant data needs to come together for the user to meet a common focus / goal / objective and provide actionable insights.

There are many different types of data including personal data (anything specific to an individual), transactional data (anything that requires an action to collect), Web data (anything that is available on the internet), and sensor data (anything produced by the Internet of Things). Data can provide strategic insight and answer the what, where, why, when and how for any process and the security and management of it is essential for a smart city.

DATA COLLECTION, USE AND DISCLOSURE

MyAirdrie provides a single sign-on that allows users to authenticate to the Community Operating System (COS) and display COS dashboards and information through embedded and encrypted technologies. It is an existing system managed by the CoA independent of the SCC. MyAirdrie Portal collects credential information to allow for signup (email address and password). MyAirdrie uses account verification to

ensure email addresses are valid. Passwords are stored as a hashed value and cannot be reverse-engineered externally or internally. During sign-up, input of a first and last name is optional and used only for personalizing the login page.

Stored data by the COS is for the verification, security, mapping, and utilization of data only. The SCC project will not be a collector of data; therefore, the life cycle of data will not need to be managed. As outlined in Chapter 4: Technology, the COS will be an enabler of secure and private data sharing. There is no intent to create a data repository to store data. The premise for the project is to bring together disparate data sources.

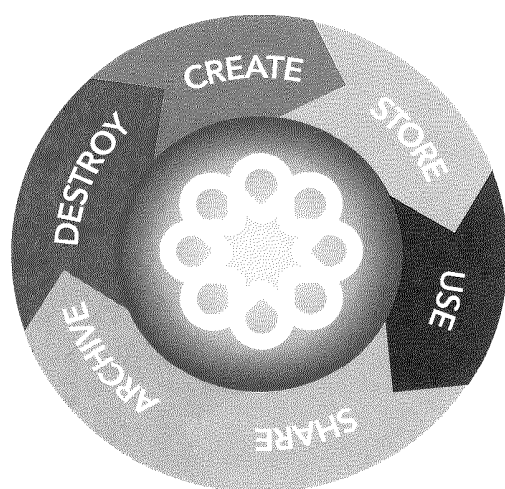


Figure 7.1 shows the COS Data Life Cycle – create, store, use, share, archive and destroy as a repeating process.

- **Create** – COS will connect to existing data sources to enable data flow. Data will not originate or be created by the COS.
- **Store** – COS will temporarily store data as data requests are made by users. Temporarily stored data is de-identified.
- **Use** – COS enables data from disparate data sources to come together to inform users with meaningful content.
- **Share** – COS enables sharing of data between users.
- **Archive** – COS does not archive or store any identifiable or individual data. Configuration and mapping data is archived and saved over time. Aggregated data, used for benchmarking, may also be archived. This is also de-identified.

- **Destroy** – Temporary data is destroyed as soon as the user request and/or session is ended.

Partnerships will be entered into to acquire knowledge for data sharing. These external data sources will be required contractually to comply with their governing privacy legislation and ensure they have the legal authority to collect, use and disclose their data. PIAs will need to be completed and accepted by the OIPC prior to any API being activated. It is the responsibility of the data source to ensure proper consent is obtained or de-identification of the data occurs. The collection use and disclosure of data will remain their responsibility.

A series of information mapping and supporting databases will be stored on a server in Canada. These databases will contain information, such as, the transactional ledger, algorithms, data maps and configuration details. All ledger information will be encrypted. Some aggregated, non-identifiable data may be stored to allow for baseline analytics and comparative benchmarking. Through the MyAirdrie Portal or the HealthSmart App, users will be able to access the COS, connecting to information shared by external parties.

DE-IDENTIFICATION

De-identification occurs when the direct and known indirect identifiers of data have been removed or manipulated to break the linkage to real world identities (Future of Privacy Forum). Wherever possible, data is to be protected de-identified prior to entering the API. This means the data would be de-identified and protected by safeguards and controls. An authentication key will come with the de-identified data and will allow the data to be displayed once matched with the user's authentication key. If an external source does not de-identify data, the API will contain a processing tool ensuring all identifiable data is removed prior to flowing through to the COS. In this instance, an authentication key will come through with the data, which when matched to the user's authentication key, will cause the data to be displayed temporarily on the user's dashboard. Once a session is closed, all data will be removed from the system.

OPEN AND BIG DATA STRATEGIES (INCLUDES TRANSFERABILITY AND REPLICABILITY)

As discussed in Chapter 4: Technology, the project will be built as a private blockchain using open source technologies and be freely available to other communities to use and customize to meet their own needs. Blockchain is a secure method allowing data to go to only those parties that have been authorized to access it. Authentication, access and security are achieved through blockchain technology.

With the COS, other communities will receive:

- A profile administration tool for users providing them with the ability to manage their account information, select the connected services they want to connect to and integrate with, share specific information with others, and view and manage their information access through a comprehensive audit log.
- Health dashboards will connect users directly to the data through visualization tools. Dashboard views can be customized to the user. Dynamic tools will be integrated to allow users to view data in different formats, across time and for their specific needs. Although Airdrie is using the dashboards for health, communities can design the dashboards for other purposes.
- A Master Application Programming Interface (API) allowing for a comprehensive data interchange. It will provide central mapping and an access point for data sharing. It will also be capable of de-identifying information.
- COS modules will provide capacity for new and existing applications to connect with the COS. The modules will be any built-in or add-on functionality to the COS. An example is the Smart Service Inventory (SSI) being developed as part of this proposal. The SSI will be an available module for any other community to use. As the COS is replicated in other communities, innovations and connected modules created in one community can be shared and utilized in another.

A recipe book will be provided to communities to provide them with a roadmap on how to leverage

what Airdrie has done for their community. Examples include:

- How to build and leverage upon the SSI as a foundational directory of community information. An interface and smart functionality will be built allowing organizations to access, input and collaborate on an inventory for their community.
- Insights and gamification will be available, providing motivation for participation and engagement. Gamification encourages healthy competition across the community, fostering behaviour change.
- Providing the code required to connect and integrate data with the COS App. Airdrie is focusing on activity and fitness tracking (FitBit, Google Fit, etc.), health and wellness measurement (established by Alberta Blue Cross), community connections, community involvement and micro-credentialing, and eMental Health.

ACCESSIBILITY AND INTEROPERABILITY

As outlined in Chapter 4: Technology, accessibility and usability of the COS is core to the technology. There will be three main access points to the HealthSmart App: the MyAirdrie Portal, native mobile apps and kiosks, located in strategic locations throughout the city. Each access point facilitates user connectivity.

Interoperability is a key function of the COS. Increased interoperability, innovation and shared expertise will be achieved as the COS will be compatible with a wide array of development languages. The COS API further fosters interoperability through defining protocols and standards for system connectivity and information sharing. This will enable the COS to work with other apps, platforms and devices like what Google, Amazon, Apple and others have successfully done.

SECURITY AND PRIVACY

Security and privacy will be central to the development of the HealthSmart Technology, and include specific strategies as outlined in Chapter 4: Technology. Several risks have also been considered. A System Security Plan will be developed complying with best practices identified by leading security experts. Chapter 6: Engagement describes the significant stakeholder engagement in the development and implementation

of the technology. Concerns raised by users, residents and stakeholders will be considered and, where appropriate, built into the System Security Plan.

OUR APPROACH TO DATA

Identify sources or stakeholders that may have access to applicable data and data elements required to produce value. It is about targeting and then providing the ability to act on findings. The four kinds of data (personal, transactional, web and sensor) need to be combined into content.

- Identify partners (e.g., Stats Canada) and implement existing data standards (e.g., The International Open Data Charter). Establish a common data structure that can be reproduced and used across other communities and a balanced approach to acquisition and tie acquisition to our Challenge Statement.
- Establish a secure and private data use strategy. Data is the most important asset for all stakeholders including citizens. Security and privacy are essential. Ensure technology, policies, and protocols are all in place prior to any data use and users, residents and stakeholders have input into the strategy.
- Make data accessible. Create a data visualization strategy. Individuals, groups, organizations, and the community need to be able to view, analyze, and ultimately act on the collected data. Empower and engage users. Foster a data feedback loop to increase data use. Link content to the right questions. When producing content, provide the means to trace the results back to key data elements. Content must be timely when needed.
- The value of data is realized when it links to predefined goals. Value increases using visualization. Data value can be measured using tools such as the Data Value Index.

APPROACH TO RISK

Businesses and organizations must deal with risks, many of which have the same characteristics as those encountered elsewhere in life. To place risk in the proper business context, risk is defined as follows: Risk is the possibility that an event will occur and adversely affect the achievement of an objective.

RISK MANAGEMENT

The gold standard of risk management process models is considered the ISO/CSA 31000 Risk Management Standard. The ISO 31000 Risk Management-Principals and Guidelines Standard definition of risk is: The effect of uncertainty on objectives. As outlined in Chapter 3: Project Management, the risk management program components include:

- Plan Risk Management
- Identify Risks
- Perform Qualitative Risk Analysis
- Perform Quantitative Risk Analysis
- Plan Risk Responses
- Implement Risk responses
- Monitor and Control Risks

(Source: PMBOK Sixth Edition)

Expanding on the risk mitigation and response strategies outlined in Chapter 3: Project Management, there are seven key aspects to managing risk:

1. Risk Acceptance – informed decision to accept the likelihood and consequences of the risk
2. Risk Transfer – shift responsibility to another party e.g., insurance
3. Risk Elimination – find solution(s) to eliminate risk as consequence would be unacceptable
4. Risk Increase – informed decision to increase a particular risk e.g., cost of managing risk outweighs its impact
5. Risk Reduction – implementation of appropriate tools/techniques/processes to reduce the likelihood of risk and/or its impact
6. Risk Avoidance – informed decision to not become involved in risk situation or cease activities because risk is too high
7. Residual Risk – after risk treatment, determine if remaining risk is acceptable, if not other actions may be needed

A risk management framework and guidelines have been completed that establish a standardized approach towards risk as we move through implementation

of the project. A risk register has been created and is being populated.

Table 7.1 identifies the risks with respect to privacy and data.

Risk	Mitigation Strategy
Unauthorized use of personal information by internal or authorized parties or unauthorized parties	<ul style="list-style-type: none"> • Ensure information is only accessible to those who need to know. Leverage IT and security protocols to protect personal information. • Unauthorized use by internal parties will result in disciplinary action (up to and including termination). • Ensure any access by authorized external parties is protected under contract. • Unauthorized use by external authorized parties may result in contract termination and any remedies available under the contract. • All COS Users are assigned a unique User Id. • All COS users are subject to COS standards. These may include: <ul style="list-style-type: none"> o Code of Conduct o Information Access and Acceptable Use Policies o Confidentiality Statement o COS User Agreement • All COS users complete annual continuing education modules that include information privacy and security awareness. • Logging and auditing are implemented within the production environment of the COS and users are advised their activity is audited through the User Agreement. • Breaches are reported and investigated according to policies. • Apply information security classifications to each data element in all data assets connected through the COS. This will enable more efficient auditing as well as assist in classifying information products appropriately.
Unauthorized collection, use, or disclosure of personal information by external parties	<ul style="list-style-type: none"> • Conduct periodic system penetration tests. • Unauthorized use by external authorized parties will result in contact termination and any remedies available under the contract. • External parties/consultants are subject to COS standards and agreements. These may include: <ul style="list-style-type: none"> o COS User Agreement o COS Data Manager Agreement o IT Access Request Form • Access to authorized users within the COS is based on the need-to-know principle (authorized users will have limited access to data according to their role). • A quarterly review of individuals who have accessed the COS will be validated against the list of authorized COS users by the COS Administration. • ISAs have been established to limit use and disclosure of COS data connections by external users. • Users are provided with information that an approved external data source is under an agreement as well as specifics on any limitations for use and/or disclosure within the agreement.

Risk	Mitigation Strategy
Loss, destruction, or loss of use of personal information	<ul style="list-style-type: none"> • Only authorized users have access to personal information. • Education / training on the importance of managing personal information appropriately. • Adherence to information security classification protocols. • Use of data and services will all require detailed ISAs. • Only authorized system administrators control access rights to the COS. • As the COS application is managed by the joint governance structure of the CoA and the AAHC, the COS follows the standard CoA backup / archival policies and CoA Antivirus implementation. In the event of accidental loss of data, the administrative data (mapping/ algorithms/ configurations, etc.) can be re-created / recovered. • The core COS environment is read only for anyone except system administrators.
Contractor or business partner collects, uses, or discloses personal information in contravention of FOIP or CoA policies	<ul style="list-style-type: none"> • Ensure that any parties that information is shared with are authorized to do so. • Authentication protocols require both authorized user and authorization from external data source. • Requirements for PIAs and compliance with privacy legislation is enforced.
Use of Blockchain technology	Covered in Chapter 4: Technology
Hacking at source, corruption in API, accessing data while in transit or at rest	<ul style="list-style-type: none"> • Data must be protected during transit and while at rest. • For protecting data in transit 256-bit encryption will be applied to all sensitive data prior to moving and will use encrypted connections (HTTPS, SSL, TLS, FTPS, etc.) to protect the contents of data in transit.
Cybersecurity	<ul style="list-style-type: none"> • Work with existing, recognized cybersecurity organizations and experts to create a detailed, comprehensive cybersecurity framework and incident response plan.



COMMUNITY OPERATING SYSTEM

Delivery of the COS represents the single most costly expenditure within the proposal. This indeed represents a technology solution, that will act as the foundation to enable achievement of our Challenge Statement.

Chapter 3: Project Management describes the procurement process that will be undertaken to secure a contract for service. The overall cost is projected to be \$5.5 million with \$2.7 million expected to be spent within the first year.

Our final submission speaks to the requirement of vendor resources to meet the software development, communication and engagement, and external audit functions. Software development costs have been estimated at \$4.5 million with a \$2.5 million commitment in year one and \$500,000 each year for the next four years and were estimated through consultation with three software development firms. Throughout the consultation phase, the developers have been provided with a clear objective for the intended purpose of the software, and the requirement of replicability in other communities. Communication and engagement costs have been estimated at \$500,000. These estimates were generated through consultation with a local professional services consultant with specialty services in both communications and engagement.

OTHER AREAS OF EXPENSE

A hand full of other direct and indirect costs will be needed to deliver on the outcomes. As shown within the project plan, the CoA and AAHC subject matter experts will be inputted throughout the five years as associated with the work plan.

The development team will need to be housed together physically. A complete lack of available space within the CoA and AAHC requires us to include costs for leased space. For the purpose of budget development lease rates and average operating costs were calculated at \$26 and \$6.50 / SQ FT respectively (Source: City of Airdrie Economic Development). Commercial Lease rates range from \$24-\$30/SQ FT and average operating costs for this space ranges from \$5-\$8/ SQ FT). The space requirement has been estimated at 900 SQ FT.

Training costs, supplies and office space overhead have been considered and estimated for the project. Overhead costs have been estimated at 8% of projected budget excluding technology contract.

An annual external audit is expected to be a reporting requirement. These costs have been estimated at \$160,189. These costs are clearly identified in the project budget under the following activity types; governance, legal, privacy and risk, procurement, implementation, and IT.

FINANCIAL TOOLS, ACCOUNTING METHODOLOGIES AND REPORTING AND INTERNAL CONTROLS

As the grant dollars will flow to the CoA, the CoA will excise the role of steward over public funds. The management, recording, distribution and reporting to the Federal Government will be the responsibility of the CoA. As a mid-sized Alberta municipality, the CoA has in place systems, governance and processes to meet this responsibility.

The CoA adheres to generally accepted accounting principles for local government established by the Public Sector Accounting Board and is published by the Chartered Professional Accountants of Canada. The accrual basis of accounting is used.

As detailed within Chapter 3: Project Management, the project will be delivered in line with best practice project management methodology. The CoA adheres to standard project methodology in accordance with the Project Management Body of Knowledge (PM-BOK®) with adaptations to align with public organizational practices for use of public funds, approvals and procurement legislation. Section 7 of the project plan demonstrates the elements of internal control with the requirement to:

- Have scheduled standardized project team meetings
- Document agendas and meeting minutes
- Scheduled project status updates
- Ensure project status reports conform to standard templates including budget updates, timeline updates, risk identification and mitigation strategy identification
- Schedule sponsor meetings

Monthly reporting will be required to the Steering Committee. This reporting will include project status updates, as delivered by the Program Manager and quarterly budget updates as delivered by finance staff.

IN-KIND CONTRIBUTIONS

Both the CoA and the AAHC are committed to the successful delivery of the project plan and it is anticipated that in-kind contributions will continue throughout the five-year span. The project plan has identified where specific expertise will be drawn from each of the organization, however, the success in this project. Table 8.1 and Table 8.2 indicate anticipated in-kind contribution throughout the implementation phase. The CoA will keep track of and include these costs in the reporting requirements set out by Infrastructure Canada.



Table 8.1 shows the in-kind resources that will be provided by the CoA during the implementation phase.

City of Airdrie In-kind Resources Implementation Phase	CAO – Advisory Committee member, champion, leadership and strategic direction.
	Director Office of the CAO – leadership and direction to legislative and legal services. Ensure compliance to legislation, partnership agreement and contract oversight.
	Director of Corporate Services – leadership and direction technology, finance, and accounting.
	Intergovernmental Liaison – liaison between the municipality, AAHC, other community organization and various levels of government.
	Manager Information Technology – leadership and direction to technical staff.
	Various other CoA departments such as planning, engineering, parks, public works, community development, social planning, recreation facilities. Expertise, data and input as aspects of SDOH are explored.
	City Council – support and champion

Table 8.2 shows the in-kind resources that will be provided by the AAHC during the implementation phase.

AAHC In-Kind Resources Implementation Phase	CEO – Advisory Committee member, champion, leadership and strategic direction.
	CFO – Financial expertise.
	Board Members – Advisory and health Expertise, Champions and support.
	Specialists – Health, risk and privacy, subject matter experts.
	Research and administrative supports

PERFORMANCE MEASUREMENT TOOL AND BLUE ZONES – \$3.5 MILLION IN-KIND

As indicated within our SCC application and demonstrated in Chapter 2: Performance Measurement, the Blue Zone initiative will play a significant supporting role to achieving project outcomes.

A performance measurement tool specifically adapted to measure overall health and health outcomes will be developed. The specific and targeted approach to developing this tool will be accessed through a partnership between the AAHC and Alberta Blue Cross. Performance measurements used in the Blue Zones initiative will support our SCC initiative and our Challenge Statement. The total estimated value of this measurement tool is \$3.5 million and has equal importance to both AAHC initiative and the SCC. For the purpose of in-kind valuation, it will be assumed to be one half of the valuation to the AAHC and the program and as such, the valuation will be recorded at \$1.75 million for our SCC initiative.

Stakeholder engagement and a process for engaging / involving the community put forward by the Blue

Zones Project will be leveraged. This will ultimately provide synergies to effectively engage the population to focus on “Their Own Health.” The engagement costs associated with the Blue Zones Initiative are in excess of \$4 million. The in-kind valuation of this engagement strategy and implementation plan will be \$2 million.

REVENUE GENERATION – OPERATIONAL PHASE

Revenue generation for the purpose of long-term sustainability has and is actively being researched and explored. Potential revenue streams include:

- The Customization of the open source software to meet the needs of particular clients
- Paid apps and licenses for premium services above and beyond the base model operating system access
- Advertising revenues, and sponsorship advertising

While advertising revenues represent a good sustainable revenue source, there will be a need for strategic alignment among potential advertisers with the overall objectives of the project and Challenge Statement outcomes. Sponsorship subtype advertising fits with the model of encouraging participation by unlocking rewards for users, based on actions within the system. These not only support the revenue generation for sustainability, but also encourage end user behaviours, supporting increases in overall health and health outcomes.

In order to maintain the sustainability of the COS, the revenue streams will need to meet or exceed a target of \$10,000 per month. This is expected to meet the estimated long-term annual operating budget of \$120,000, for system maintenance and software upgrades. These anticipated maintenance costs are based on estimates through consultation with software development vendors.

RISKS AND MITIGATION STRATEGIES

The CoA and the AAHC see the management of risk as an essential element to the successful delivery of the project plan outcomes. The CoA adheres to best practice project management methodology and standards status reporting at multiple level requires

ongoing analysis of risk and identification of mitigation strategies. AAHC is establishing risk management systems within their organization. Regular, expected review and reporting as described above, will manage potential risk through the project life.

Table 8.3 identifies typical risks of the project plan spanning over multiple years, and as the case with multi-year complex projects.

Risk	Mitigation Strategy
Project Management: Unforeseen circumstances and their potential to jeopardize completion of project on time and on budget.	Utilize best practice in project management to measure and monitor the project schedule and budget. Changes to scope, timing and finances will be authorized the Program Manager and the Advisory Committee
Foreign Currency Risk: Unexpected fluctuations in Foreign Currency Rates.	Negotiate all contracts for products and services in Canadian dollars. This is a risk avoidance strategy, that transfers risk to a vendor.
Economic Climate: Adverse changes in the economic climate.	The environment will be monitored regularly and changes in forecasts for CPI calculations and any market-based pricing used in the budget will be reported on through quarterly budget variance reporting.
Government: Changes in Government that have an unintended adverse effect on the planning, implementation and sustainability of the organization's initiatives.	Any changes in Government requirements for financial reporting and management of the project will be addressed through a structured change management process.
Vendor Management: Unanticipated departure, insolvency, or inability to complete contractual obligations.	Vendors will be evaluated on their ability to proceed as a "going concern." Payments to vendors will be made on a percentage of completion basis, after meeting benchmark performance deliverables. Strong, comprehensive contracts will be established prior to the commencement of work. Procurement Specialists available through CoA will be consulted and will help guide this process.
Project: An unanticipated change in scope or other key criteria of a project that may cause the project to deviate from its original plan.	Any change in scope of work must be evaluated and documented under the Change Management System, with approvals occurring by Program Manager and Advisory Committee as appropriate.
Resource Sustainability (Human): The inability to attract, retain and increase capacity / knowledge of staff.	Effective recruitment efforts to ensure all resources are qualified and under contract for the life of the project as possible. Standard human resource performance measurement methodologies will be implemented.

USE OF FINALIST GRANT

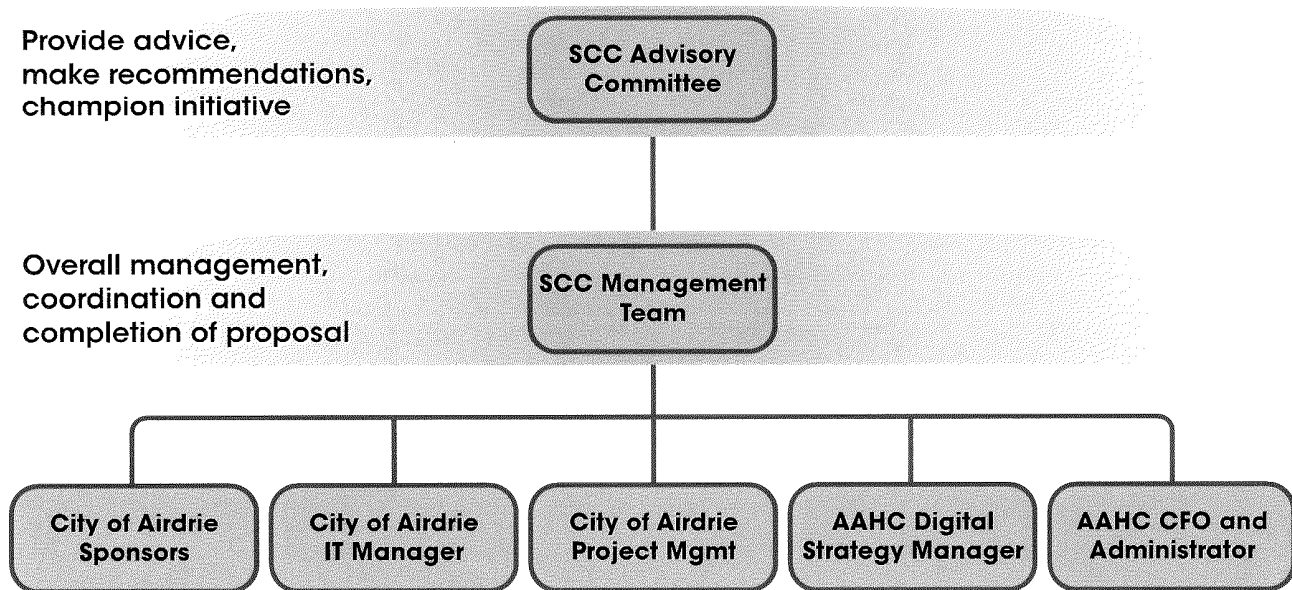
The financial support provided through the finalist grant has been instrumental in facilitating the development of our proposal. A combined partnership approach was taken as use of grant dollars was established. This stage of the competition for the \$10 million was addressed through adherence to good project management practice. In order to work effectively in partnership, our SCC Advisory Committee and our SCC Management Team was established. The Advisory Committee, having executive representation from the CoA and AAHC, had oversight and the Management Team was responsible to develop and deliver the proposal. Endorsement of the project scope as well as terms of reference occurred at the onset of the project and documented accountabilities and roles.

As is evident with the Statement of Use that follows, the grant dollars were used to acquire needed expertise

as related to communications, stakeholder engagement, legal and risk management. Both the CoA and AAHC leveraged existing staff to the best of our abilities and other services were secured where capacity or knowledge were not available through existing staff. A portion of the grant dollars was used to cover the cost of staff that were seconded to the project as well as funding for the required travel, printed material, stakeholder engagement events and meeting costs. The schedule below details the in-kind contribution for this proposal development phase. Project sponsorship as well as drawing on various subject matter experts was completed at the expense of the CoA and AAHC.

The CoA, as the party responsible for the grant, had oversight to budget. On November 18, 2018 a budget adjustment was endorsed by Council. The CoA financial systems, processes and governance were used and adhered to, including requirement of public procurement.

Figure 8.1 show the resource structure for our Smart Cities Challenge proposal development phase.



STATEMENT OF USE OF GRANT

Table 8.4 below shows how the grant funds were allocated during the proposal stage. Numbers have been rounded.

City of Airdrie Smart Cities Challenge Initiative -Proposal Finalist Grant Reporting June 2018 to April 2019							
		Budget by Object	Actual plus Projected	Governance	Technology	Strategic	Total
Budget per Application				100,000	115,000	35,000	250,000
Revenue							
Federal Grant		250,000	250,000				
Other Revenue							
Total Revenue		250,000	250,000				
Expenses							
Salary Wages and Benefits		19,667	30,065	18,039		12,026	30,065
Contracted Services							
Communications Advisor	59,123		56,669	45,335		11,334	56,669
Specialist	20,000		23,000	23,000			23,000
Video Production	6,000		10,850			10,850	10,850
Health Co-operative Expertise	73,500		100,000	15,000	75,000	10,000	100,000
Website	2,000		4,750	4,750			4,750
Printing			1,050	1,050			1,050
Development of Prototype	20,000		0		0		0
sub total contracted services		180,623	196,319	89,135	75,000	32,184	196,319
Legal Fees		10,000	3,950	3,950			3,950
Travel Expenses		13,210	14,738	14,738			14,738
Promotion/events/public engagement		25,000	4,436	4,436			4,436
Meeting Expenses and other Miscellaneous Costs		1,500	492	369		123	492
Total Expenses		250,000	250,000	130,667	75,000	44,333	250,000
Net		0	0	(-30,667)	40,000	(-9,333)	0

The application indicated the use of budget was to be spread across the three categories: Governance, Technology and Strategic. These three elements signify the main components addressed through the development of the proposal. The actual costs by object code have been allocated to the three categories in order to demonstrate how expenses lined up with original budget expectations.

The original application budget made the best assumptions possible at the time. Governance and Technology continued to be the two most significant elements. As the project team progressed through proposal development, the sources used to pull together data needed varied slightly from the original application.

IN-KIND CONTRIBUTION

Table 8.5 shows the many different skills, resources and expertise were needed to complete the development of the proposal.

		In-Kind Cost
City of Airdrie	CAO – Executive Sponsor	23,600
In-Kind Resources	Director Office of the CAO – Sponsor	55,680
	Director of Corporate Services – Sponsor	26,800
	Intergovernmental Liaison – Lead	60,500
	Manager Information Technology – Technology expert	36,800
	Team Leader Communication – Expert and communication specialist oversight	30,200
	Developers – MyAirdrie and data expertise	1,000
	Social Planning – community data and partners	700
	Legislative Services – legal, risk, privacy, FOIP and Governance	375
	Council Representation – Advisory Board	1,200
	Total In-Kind Costs City of Airdrie	\$234,904

AAHC	CEO – Executive Sponsor	\$15,000
In-Kind Resources	CTO (Chief Technology Officer) – Lead	40,000
	CFO – Financial Expert	5,500
	Operations Director	15,750
	Board Members – Advisory and health expertise	37,500
	Specialists – Health, risk and privacy	22,300
	Research	8,750
	Strategic Advisory	5,000
	Total In-Kind Costs AAHC	\$172,800



CHAPTER 9

IMPLEMENTATION PHASE REQUIREMENTS

This program will remain evergreen, meaning we will periodically update and amend, based on lessons learned through evaluation of ongoing assessment activities. Throughout the implementation of this program, the City of Airdrie (CoA) will regularly review the program using the Gender-Based Analysis Plus (GBA+) model. In the detailed work plan for this project, we have accounted for the tracking and reporting of the actions outlined in this chapter to evaluate progress on an annual basis.

1. DUTY TO CONSULT WITH INDIGENOUS GROUPS

The CoA together with the Airdrie & Area Health Cooperative (AAHC) are committed to strengthening relationships with our Indigenous, First Nations, and Metis peoples through continued relationship building and consultation. Consultation is a process intended to open lines of communication to understand and consider the potential positive and adverse impacts of anticipated CoA decision on First Nations' Treaty rights, with a commitment to address concerns and make accommodations where possible.

As outlined in Chapter 6: Engagement, the CoA will use the International Association of Public Participation (IAP2) methodologies to guide stakeholder engagement with our citizens.

2. MODERN TREATY OBLIGATIONS

The CoA is committed to using the Alberta Union of Municipal Association's Welcoming and Inclusive Communities toolkits, the Status of Women's Gender Based Analysis Plus methodology, and the IAP2 methodologies. To ensure all our community is represented in our stakeholder engagement, communications, and outreach, has access to our program, and has full support of the municipality, we are using a mixed model approach.

3. COMMUNITY EMPLOYMENT BENEFIT (CEB)

We have a unique opportunity for our municipality to create employment and procurement prospects for a broader group of citizens. The CoA continues to create employment and procurement opportunities, both directly and via positive spill-over opportunities for members in our community who face labour market barriers. There are three main strategies we will employ to ensure this objective is met: 1. targeted employment strategy; 2. proactive procurement for Community Operating System (COS); and (3) curriculum development and training to meet current and future labour market demands.

The CoA and AAHC are committed to recruiting the best and brightest to join our teams. The HealthSmart Technology system and monitoring will require a sizable team to be employed. There

are many people in our community who have the skills and qualities that will enrich our organizations, many who face labour market barriers including discrimination. Working with our social agencies, community networks, and social enterprises, we will initiate a targeted employment strategy that will reach out to Indigenous peoples, women, persons with disabilities, veterans, youth, and recent immigrants. We understand that persons from these groups face various barriers to apply for jobs within Airdrie, and we will use multiple strategies to remove or address those barriers.

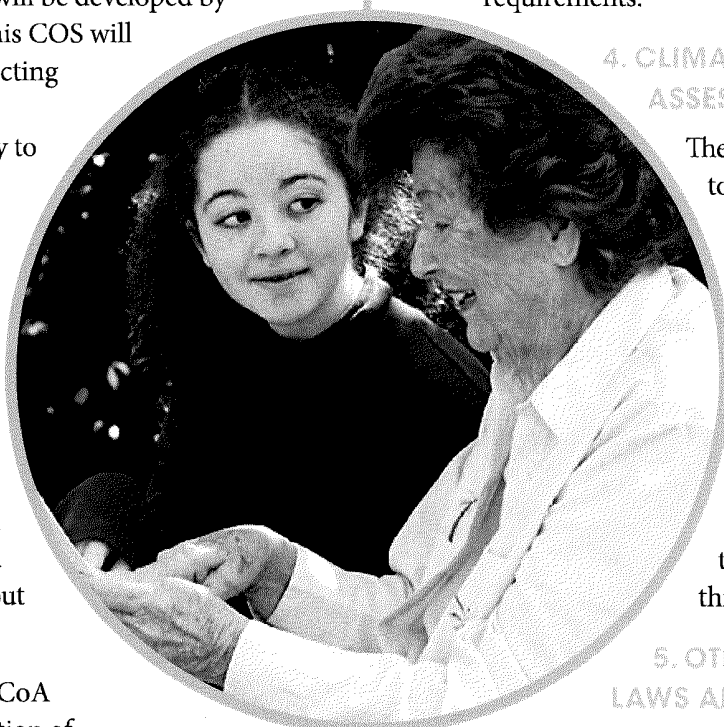
The HealthSmart COS, is a smart information exchange software that will be developed by the CoA and AAHC. This COS will function as a hub connecting users and our citizens, efficiently and effectively to the services in the community, allowing them to meet their health-related goals. The CoA is committed to supporting procurement opportunities that will be focused on small and medium enterprises (SMEs), and specifically SMEs with a depth of knowledge about our local community.

To enrich the COS, the CoA will support the production of HealthSmart Apps through several programs and opportunities aimed at short- and long-term skill development to meet the ever-changing labour market demands. Some of the programs that the CoA will back include curriculum development, programming training, and hackathons.

Working with our local school divisions, we will build a curriculum focused on Information Technology programing with a module on HealthSmart Apps. This curriculum will build transferable skills in our youth and prepare them for a future labour market. Additionally, once this curriculum is developed, it can be replicated in local government training courses,

available to other Airdrie citizens looking to re-train and re-skill, and to other jurisdictions.

The CoA is committed to sharing this technology with all our citizens and will promote its use and applicability by sponsoring regular hackathons. These hackathons will be open to all citizens and aim to inspire an entrepreneurial spirit. We will work directly with the school divisions to promote these events and challenge our youth to use the skills learned in the co-developed curriculum. HealthSmart Hackathons will challenge our community to develop a new set of high-demand transferable skills that will meet future employment requirements.



4. CLIMATE LENS ASSESSMENT (CLA)

The CLA does not pertain to the Airdrie Smart Cities Challenge (SCC) proposal. The total cost of projects with a primary focus on climate change adaptation, resilience, disaster mitigation, or a reduction in GHG emissions is less than the \$10 million threshold.

5. OTHER APPLICABLE LAWS AND REGULATIONS AND POLICIES

The City of Airdrie Values, a formal recognition of the values held by the CoA to all its citizens and employees, outlines the vision, mission, and core values. The CoA's vision statement states "Airdrie is a vibrant, caring community rich in urban amenities and opportunities for everyone. We value a healthy, sustainable environment connecting people and places." The CoA's Core Values are the heart of everything we stand for. Values that the CoA has committed to include: Open Dialogue; Collaborative Relationships; Learning; Ownership; Innovation and Entrepreneurial Spirit; and Encourage the Heart. The CoA's mission, Create-Serve-Care, was established

by the municipal employees and we are committed to achieving a corporate culture that supports these values.

While the CoA does not currently have a specific inclusion policy when hiring for leadership positions, we demonstrate our commitment to supporting the career advancement of women and is evident in the CoA's Senior Leadership Team that is comprised of three males and four females, and our SCC Management Team that consists of four males and seven females.

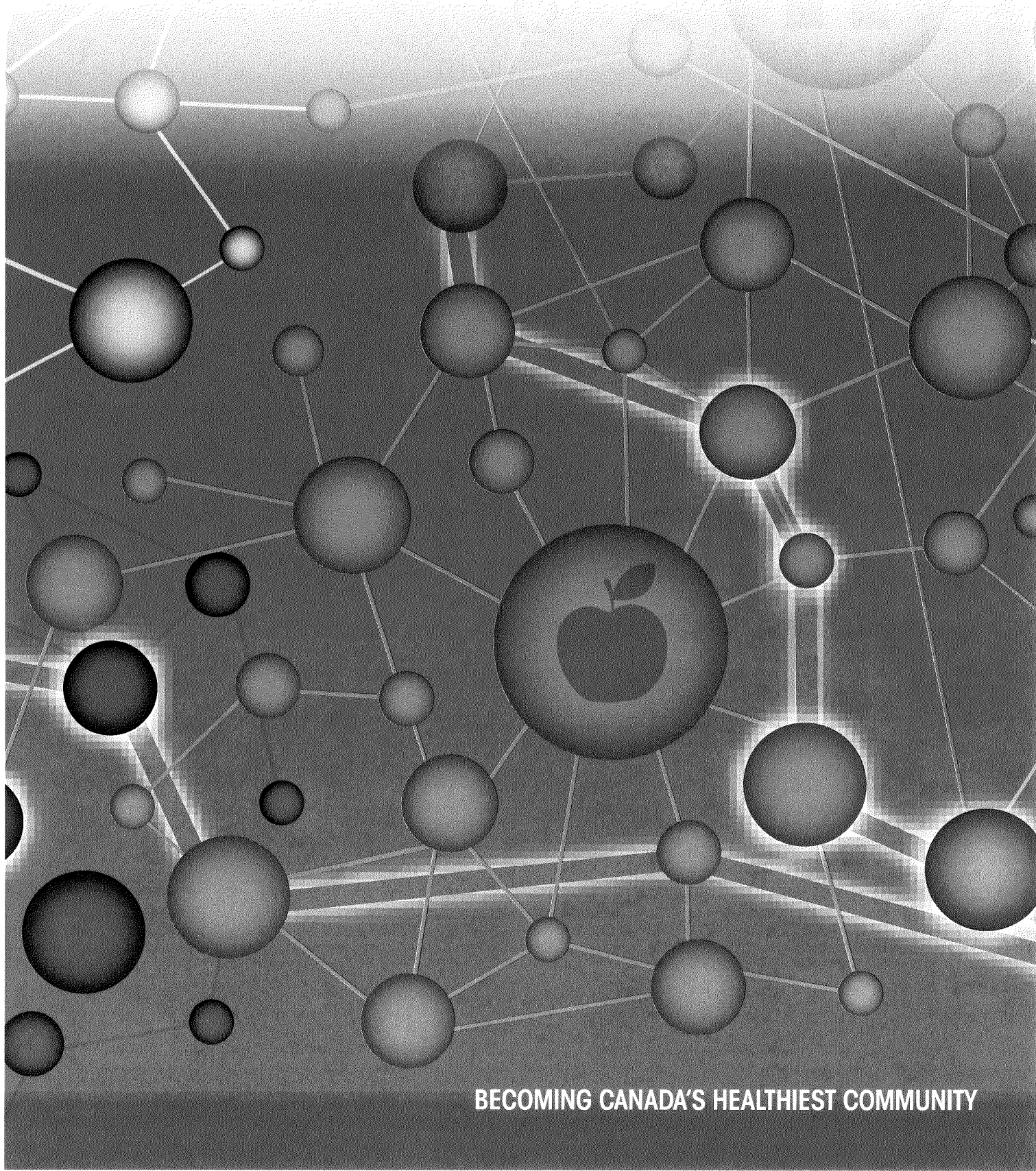
The CoA will implement Gender-Based Analysis Plus training for all staff, including front line workers, boards, and committees who are working on the SCC initiative. This training is a key component of the CoA's commitment to the principles of inclusion and recognition of the value of diversity.

In addition, the CoA acts under all applicable legislation, including:

- *Alberta Municipal Government Act (MGA)*
- *Agreement on Internal Trade (AIT)* (referred to as the Canadian Free Trade Agreement as of July 1, 2017)
- *Comprehensive European Trade Agreement* as of July 1, 2017
- *New West Partnership Agreement (NWPTA)*
- Applicable competitive bidding laws, and
- *Freedom of Information and Protection of Privacy Act (FOIP)*

The rules and regulations the CoA is held to under these various pieces of legislation are outlined in other chapters in this document.





BECOMING CANADA'S HEALTHIEST COMMUNITY



PROPOSAL APPENDICES



BECOMING CANADA'S HEALTHIEST COMMUNITY

APPENDIX A: LETTERS OF SUPPORT





Premier of Alberta

Office of the Premier, 307 Legislature Building, Edmonton, Alberta T5K 2B6 Canada

February 20, 2019

His Worship Peter Brown
Mayor, City of Airdrie
400 Main Street SE
Airdrie, AB T4B 3C3

Dear Mayor Brown:

Thank you for your letter regarding Airdrie's Smart City Application, and providing an overview of the health initiatives planned and underway.

Congratulations on becoming one of the finalists in the federal government's Smart Cities Challenge \$10 million category. This is a significant milestone, and a reflection of the quality of the vision and initiatives within the proposal. Airdrie is an exciting and leading edge community and I look forward to keeping my eye on the results of this competition.

I was also pleased to see that in addition to Airdrie, the city of Edmonton, and the combined proposal from Parkland, Brazeau, Lac Ste Anne, and Yellowhead Counties are also finalists in the \$50 million and \$10 million categories respectively. Alberta is well-represented in the Smart Cities program.

Attached is a letter of support for your proposal. This letter complements the letter provided by Deputy Premier and Minister of Health, Sarah Hoffman.

Thank you again for reaching out to me and best of luck in the competition.

Sincerely,

A handwritten signature in black ink, appearing to be 'R Notley'.

Rachel Notley
Premier of Alberta

Attachment



Premier of Alberta

Office of the Premier, 307 Legislature Building, Edmonton, Alberta T5K 2B6 Canada

February 20, 2019

Honourable Francois-Philippe Champagne
Minister of Infrastructure and Communities
Suite 1100, 180 Kent Street
Ottawa ON K1P 0B6

Dear Minister Champagne:

I am pleased to express my support for Airdrie's finalist proposal for the Smart Cities Challenge \$10 million category.

The City of Airdrie has worked collaboratively over the past two years to engage hundreds of individuals and dozens of organizations to inform stakeholders and obtain community support in the development of this proposal.

Becoming the first community in Canada to receive Blue Zone certification is particularly exciting, as it sets the stage for other communities across Canada to pursue this designation and achieve their health goals.

We know that the social determinants of health play a major role in the overall health of individuals and communities. These determinants include lifestyle, income, housing, and sense of community. Blue Zone status, as well as the other projects identified in this proposal, focus on the social determinants of health and a whole community approach to proactively achieve greater health outcomes and quality of life.

I encourage you to consider Airdrie's proposal for the Smart Cities \$10 million category.

Sincerely,

Rachel Notley
Premier of Alberta

cc: His Worship Peter Brown, Mayor of Airdrie



Premier of Alberta

Office of the Premier, 307 Legislature Building, Edmonton, Alberta T5K 2B6 Canada

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I encourage you to consider Airdrie's proposal for the Smart Cities \$10 million category.

Sincerely,

A handwritten signature in black ink, appearing to be 'R. Notley', written over a light blue circular stamp.

Rachel Notley
Premier of Alberta

cc: His Worship Peter Brown, Mayor of Airdrie



ALBERTA
HEALTH

*Deputy Premier
Office of the Minister
MLA, Edmonton-Glenora*

AR 157016

February 8, 2019

Honourable Francois-Philippe Champagne
Minister of Infrastructure and Communities
House of Commons
Ottawa ON K1A 0A6
E: infrc.minister-ministre.infrc@canada.ca

Dear Minister Champagne:

I am pleased to provide this letter of support for Airdrie's finalist proposal for the Smart Cities Challenge for the \$10 million category.

The vision behind the submission of "Own Our Own Health – Becoming Canada's Healthiest Community" is an aspiration of many communities across Canada, but few have taken the difficult steps and engaged the right stakeholders, and identified the innovative solutions, to see this vision become a reality.

Airdrie's submission focuses on bringing the community together, addressing the social determinants of health, and better utilizing the power of data analytics and technology to improve health outcomes. The impact that social determinants of health have on our overall wellbeing far outweigh that of the healthcare system. Blue Zone certification has demonstrated that to be an effective model for improving overall health and quality of life.

Harnessing the power of information technology, and addressing the social determinants of health, are recognized by Alberta Health as strategic areas of focus for mitigating our growing healthcare costs and keeping Albertans healthier for longer. This is an ongoing challenge for all jurisdictions across Canada as we find new ways to deliver more value for our healthcare dollars, and care that is better aligned with the needs of communities.

Realizing the full scope of work outlined in this proposal sets the stage for not only Airdrie to improve health outcomes, but through lessons learned and the acquisition of Blue Zone certification, benefit other communities across Alberta and Canada.

.../2

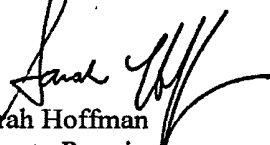
423 Legislature Building, 10800 - 97 Avenue, Edmonton, Alberta T5K 2B6 Canada Telephone 780-427-3665 Fax 780-415-0961
10996 - 124 Street, Edmonton, Alberta T5M 0H8 Canada Telephone 780-455-7979 Fax 780-455-2197

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Honourable Francois-Philippe Champagne
Page 2

I encourage you to consider Airdrie as the successful recipient of the \$10 million category.

Sincerely,



Sarah Hoffman
Deputy Premier
Minister of Health

cc: His Worship Peter Brown, Mayor, City of Airdrie



ALBERTA
ECONOMIC DEVELOPMENT AND TRADE

February 14, 2019

*Office of the Minister
Deputy Government House Leader
MLA, Edmonton-Beverly-Clareview*

AR 70233

His Worship Peter Brown,
Mayor
City of Airdrie
400 Main Street SE
Airdrie, AB T4B 3C3

Dear Mayor Brown,

I am writing this letter to offer support for the City of Airdrie and Area's proposal to Canada's Smart Cities Challenge (CSCC).

We understand that the CSCC encourages communities to adopt a smart cities approach to improve the lives of their residents through innovation, data, and connected technology. At its core, Airdrie's proposal aims to increase the health and well-being of rural communities through the full use of integrated data and connected technologies.

The City of Airdrie's holistic proposal aligns with several Government of Alberta priorities related to health outcomes, innovation, information, and communication technologies. The comprehensive proposal has the potential of generating social, economic, and environmental benefits for this region.

Alberta's Ministry of Economic Development and Trade is hopeful the proposal to CSCC will be successful given the benefit it will provide to residents throughout the region and the province as a whole.

Sincerely,

Deron Bilous
Minister of Economic Development and Trade

425 Legislature Building, 10800 - 97 Avenue, Edmonton, Alberta T5K 2B6 Canada Telephone 780-644-8554 Fax 780-644-8572

Printed on recycled paper



www.ab.bluecross.ca

ATIA - 19(1)
ATIA - 20(1)(b)
ATIA - 13(1)(d)



March 4, 2019

Honourable Francois-Philippe Champagne
Minister of Infrastructure and Communities
House of Commons
Ottawa, ON K1A 0A6

Re: City of Airdrie Proposal – Smart Cities Challenge

Dear Minister Champagne,

Please accept this as a letter of support for the City of Airdrie (the “City”) and area’s proposal for the Smart Cities Challenge.

Alberta Blue Cross has made significant investments and takes great pride in our evolving focus, programs, and tools relating to the encouragement and facilitation of health and wellness. As with governments across our country, we know that only by measuring the health status of individuals and communities can we understand which inputs, interventions, and programs have a meaningful impact on the health and wellness of those individuals and communities.



We support the City’s focus on “Own Your Own Health” and “Becoming Canada’s Healthiest Community.” Through such a focus, digital enablement of the residents and the community, and partnerships with organizations such as AAHC, we see tremendous opportunity for alignment with our values and the development of wellness approaches and tools.

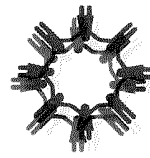
Alberta Blue Cross supports the City and AAHC in this endeavour. We are hopeful their proposal is viewed positively by the judging panel and is ultimately successful, given the enormous potential benefits to residents of the community, the province, and beyond.

If you require additional information about Alberta Blue Cross, please visit our corporate website at www.ab.bluecross.ca, or contact me directly

Sincerely,

Ray Pisani
President & CEO

THE OFFICE OF THE PRESIDENT, RAY R. PISANI
10009 108TH STREET, EDMONTON, ALBERTA, CANADA T5J 3C5 PHONE



March 1st, 2019

TO review committee

Re. Letter of Support from Airdrie & Area Health Cooperative (AAHC) for SCC Submission

Airdrie & Area Health Cooperative (AAHC) has been involved as a collaborator in submitting the original proposal to the Smart City Challenge April 2018 and in preparing the submission being made March 5th, 2019.

This collaboration brings a unique community opportunity for the project: municipal engagement for health AND our organization focused on being a catalyst and support for a range of community initiatives toward the community vision of *"Own our own health, becoming Canada's Healthiest Community"*.

- The Smart City Challenge (SCC) Proposal is building on three years of community engagement related to developing a focus for health and optimizing a range of health and health care services to meet needs in new ways. It is directly supported by plans for continued community engagement toward our vision and the Challenge Statement for the SCC proposal.
- The attached Impact plan sets out targets for the Community's Health Journey for 2019 to 2025. It demonstrates:
 - a. The commitment to three inter-connected strategies to "connect the dots for health", with:
 - i. The largest community engagement initiative to date, "Healthiest Airdrie, powered by the Blue Zones Collaborative", targeted to launch Spring 2019 and continue over the next 3 to 5 years.
 - ii. An intentional development of community capacity in support of healthy living.
 - iii. An integration of initiatives to strengthen social determinants of health in the community.
 - b. The intent to meet community needs in new ways, including a range of cross-disciplinary initiatives, culminating in development of the Health Park, which will be developed as a smart community and be the hub for innovation related to digital health.
 - c. The need to support the above with strategies with a digitally connected and enabled community, as would be advanced by the SCC.

As outlined in the SCC proposal, AAHC will be involved in the Governance Committee to ensure connected strategies between SCC initiatives and the above community-related initiatives.

The following resources requested in the SCC will be essential for AAHC to support the SCC project with health knowledge and integration of communication initiatives and messages in the community:

- The IT Project Manager—a joint hire.
- Financial Management—0.25 FTE/year

Own Our Own Health
Airdrie & Area Health Benefits Cooperative

ATIA - 19(1)

ATIA - 20(1)(b)

ATIA - 20(1)(c)

ATIA - 20(1)(d)

- Communications and Engagement SME to add to existing AAHC staff.
- Contracted Services, including Health Consultant integrated with AAHC resources and joint decision-making regarding Risk and Privacy Governance.

The community health initiative is supported by funds that AAHC is bringing to the community. [REDACTED]

Finally, AAHC is the sponsor for a community oversight Council, Council Collaborating 4 Health. The terms of reference are attached.

- At their Feb 20th meeting, the Council endorsed the proposed initiatives in the SCC Challenge as a positive contribution to the Digital Health Strategy for the community.

In closing, on behalf of AAHC Board and staff, we look forward to your consideration of the SCC submission being made by City of Airdrie and ourselves for this community.

Yours truly, [REDACTED]

Mark Seland, CEO
[REDACTED]

Attachments:

Community Impact Plan—Being Developed with Council, Collaborating 4 Health

Terms of Reference—Council, Collaborating 4 Health

TERMS OF REFERENCE 2019-2021—As of February 13, 2019

1. MANDATE

Umbrella council with accountability to the community—through reports to community and through AAHC Board and City. Operates as a support to community impact groups and system- wide development initiatives, making recommendations to back-bone/sponsoring organizations, AAHC, City, Other Sponsoring Org as required

Over-arching goal: Champion community Vision, Mission and Outcomes in an informed, innovative, integrated, and impact-focused community—integrating Mayor's Declaration: 2019=Year for Healthy Living

>> Vision: Own our own health, Becoming Canada's Healthiest Community

>>Mission: Creating a Community Healthy Culture where health = physical, mental and psychosocial health and where social determinants of health matter—and where individuals can own their own health "

>> Outcomes: Engagement, Individual & Family Wellbeing, Health Outcomes, Improved Use of Resources

2. AREAS FOR IMPACT

A. Champion a holistic view of development initiatives and opportunities, accelerating impacts toward our desired future, optimizing value-adding integration and learning as a community.

- Seek opportunities for Council & community learning re our community and opportunities for health.
- Develop and work with an annual implementation plan of initiatives that supports effective working relationships within the community and synergies across initiatives as possible.
- Steward currency of the community plan for community initiatives with a minimum of Q 3years review to confirm need to investigate emerging areas of need or opportunity

B. Foster an environment for success and impact of development initiatives.

- **Through discussion of project reports or proposals from community initiatives** (with their *needs, opportunities for change, implementation and communication plans*)
 - > *Build momentum through perspectives of value & opportunities for added impact through co-resourcing and opportunities to reduce duplication*
 - > *Share potential creative ideas -- Have you thought about /heard about?*
 - > *Understand Implementation timelines and alignment with other initiatives, etc*
 - >**Make recommendations to Back Bone Organizations (AAHC , C ITY) and sponsoring organizations**
 - a. *Endorsement*
 - b. *Recommendations to enhance forward momentum & impact (co-resourcing; collaboration to reduce duplication; future considerations) OR for further work to improve viability and alignment*
 - >**Confirm next steps (for master implementation plan) and if can profile project report on AAHC web site**
- **Through discussion of new community-wide initiatives that are brought to the Council**
 - >Determine opportunities and synergies with existing initiatives as a guide to supporting proposed forward movement to Community Vision, Mission and Outcomes
 - >Consider timing and linkages with other initiatives—and implications for overall plan.
 - >**Make recommendations to inform next steps with the initiative (value, further development & partners, implementation timing)**

C. Mobilize and support strategies for community citizens, organizations & partners to be aware of initiatives and have opportunities to connect with community-wide developments.

- Gain from Council member connections to enhance citizen knowledge of community vision and mission and opportunities for health across the community, bringing to the Council areas of opportunity or concerns; Mobilize a communications plan and networks for conversations 4 health
- Maintain community web resources; Complete an annual summary of progress per impact map.

D. Co-Create a strategic impact map & key milestones for developing impacts and provide community-wide stewardship to advance Social Determinants of Health and Targeted Outcomes

- Develop map over the first year ; complete in year 2 with outcomes data and initial work with Blue Zones.
- Focus in year 2 on community outcomes through the work of the ABZ's Collaborative
- Focus on social determinants of health in Year 3 based on work in year 2 as well as outcomes re well-being

3. MEETINGS

- Typically 5 to 8:30 pm starting with a light supper, at AAHC Offices, allowing for 1-2 major discussions/mtg
- ..Orientation Meeting Thursday, January 31, 2019
- ..Quarterly: starting Wednesday, February 20th, 2019, with third Wednesday of the month, except of Dec
Wednesday, May 15th, Wednesday, Sept 18th, Wednesday, Dec 4th

5. DECLARATION OF CONFLICT OF INTEREST

- Members will be given an opportunity at the beginning of each meeting to declare potential for conflict of interest with agenda items. A member so declaring will be given an opportunity to absent themselves from the discussion item. And this will be noted in minutes of the Council.

7. REVIEW OF TERMS OF REFERENCE

- Terms of reference will be reviewed annually, at the February meeting

ABRIO HEALTH

Our Community on the Move for Health

"It is time to get innovative. Time to change the way we have been thinking and how we have been doing things. It is time to work collaboratively to make the system more responsive to the needs of Canadians. The time is now", The Hon. Rona Ambrose, Former Minister of Health, Canada, Naylor Report 2015

"I am supportive of a grassroots approach to health," Minister Hoffman, Alberta Health to Airdrie, Dec 2015

"We need a new paradigm>>towards a wellness focus, team-based care, patient/family focused, community based care", Dr. Verna Yiu, President, Alberta Health Services, Public Forum, January 2019

DEVELOPING THE PLAN, DISCUSSION 1-FEBRUARY 20, 2019, COUNCIL, COLLABORATING 4 HEALTH

A GROWING AND CHANGING COMMUNITY

Rural Roots, Rural Communities and Urban Development

VISION

Own Our Own Health, Becoming Canada's Healthiest Community

MISSION

Creating a "Community Healthy" Culture where

- **Health = Physical + Mental + Psycho-Social Health and**
 - **Social Determinants of Health Matter and**
 - **Individuals Can Own Their Own Health**

OUTCOMES/GAINS FOR ALL

**Engagement, Individual & Family Well-being,
Health Outcomes, Improved Resource Use**

Building on the past 3 years of momentum: Community work & collaboration for 24/7 Urgent Care April 2017, Stakeholder engagement leading to report, Together for Tomorrow, April 2018; Community engagement re Blue Zones May 2018

A GROWING AND CHANGING COMMUNITY
Rural Roots, Rural Communities and Urban Development

VISION and MISSION and OUTCOMES

STRATEGIES -2019-2015

**CONNECTING THE DOTS
FOR HEALTH**

**MEETING NEEDS IN NEW
WAYS**

**BECOMING A DIGITALLY
CONNECTED & ENABLED
AND TECHNOLOGY
ENHANCED COMMUNITY**

ENABLERS

**CONVERSATIONS
for HEALTH**

**BUSINESS MODEL
for SUSTAINABILITY**

**CO-INVESTMENT for
HEALTH**

STRATEGIES

CONNECTING THE DOTS FOR HEALTH

- ❖ **Community Engagement, Multi-sectoral Development & Healthy Policy Improve Well-Being, Health & Use of Resources**
..Healthiest Airdrie- BlueZones Collaborative, linking with strategies below
- ❖ **Collaborative Development of Community Assets Optimizes Capacity for Well-being, Health & Improved Use of Resources**
..Youth Strategy
.. Activate Community for Aging in Community (TBD)
..Naturally Occurring Communities (eg schools, faith communities, neighborhoods for living, employers)
- ❖ **Integrated Community Action on Social Determinants of Health Improves Potential for Well-being & Health**
...Affordable Housing Strategy
..Smart Service Inventory & System Navigation
..SDOH Community Plan TBD

BECOMING A DIGITALLY CONNECTED & ENABLED AND TECH-ENHANCED COMMUNITY

- ❑ **Smart Community Information Creates Opportunities to "Own our own health; Own my own health"**
..with CHIRP (Community Health Information Resources Platform))
..with Smart Service inventory, with Smart City Challenge
..Applications 4 Health
e.g. ABC Balance Tool
-Well being Measure
...Linkages with System Digital Health developments TBD
- ❑ **Digital Applications Enhance Well-Being**
e Mental Health Curatio
- ❑ **Technology for Well Being**
 TBD

MEETING COMMUNITY NEEDS IN NEW WAYS

- ❖ **Needs-Based Coordination & Strengthening of Community Capacity Improve Access, Wellbeing & Health**
..Mental Health: 5 recommendations
..Domestic Violence
..Supportive Care
..Hospice Care
..Other TBD
- ❖ **Innovation to Integrate Services & Streamline Delivery Improves Access, Health Impacts & Use of Resources**
..MH: Youth MH Hub
..Healthy Aging in Community; living well with chronic conditions TBD
..Other TBD
- ❖ **Multi-sectoral Innovation and Partnerships Create New Community Capacity for Health with Improved Access & Use of Resources**
..Health Park
..Others TBD

ENGAGEMENT: to inform; to gain input; to co-innovate, co-develop, co-deliver; to assess impact

APPENDIX B: FINANCIAL DOCUMENTS



City of Airdrie
Smart Cities Challenge Initiative -Proposal
Five Year Financial Projections

	FTE	Type	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Totals
Development Team								
Program Manager	0.50	direct	54,814	55,910	57,028	58,169	59,332	285,254
IT Project Manager	1.00	direct	116,129	118,452	120,821	123,237	125,702	604,340
Developers	2.00	direct	175,422	178,930	182,509	186,159	189,882	912,903
IT Business Analyst	1.00	direct	87,711	89,465	91,255	93,080	94,941	456,452
IT Data Analyst	1.00	direct	87,711	89,465	91,255	93,080	94,941	456,452
Financial Expertise	0.25	indirect	31,452	32,081	32,722	33,377	34,044	163,675
Administration & Engagement Support	0.25	indirect	20,161	20,565	20,976	21,395	21,823	104,920
Total Development Team Salaries	6.00		573,400	584,868	596,565	608,497	620,667	2,983,996
Benefits (<i>estimated at 24%</i>)			137,614	140,368	143,176	146,039	148,960	716,157
Total Development Team Personnel Expense			711,014	725,236	739,741	754,536	769,626	3,700,153
Contracted Services								
Technology Development		direct	2,500,000	-	-	-	-	2,500,000
Technology Implementation & Maintenance		direct	-	500,000	500,000	500,000	500,000	2,000,000
Specialists		direct	100,000	100,000	100,000	100,000	100,000	500,000
Communication and Engagement		direct	89,000	100,000	100,000	100,000	100,000	489,000
External Audit		indirect	7,000	7,500	7,500	7,500	7,500	37,000
Total Contracted Services Expense			2,696,000	707,500	707,500	707,500	707,500	5,526,000
City of Airdrie Staff Resources								
Governance, Legal, Privacy and Risk		indirect	17,225	24,175	1,650	1,650	2,850	47,550
Procurement		indirect	21,336	1,500	-	-	-	22,836
Information Technology		indirect	4,725	60,704	7,800	8,025	8,550	89,804
Total City of Airdrie Staff Resources Expense			43,286	86,379	9,450	9,675	11,400	160,189

City of Airdrie
Smart Cities Challenge Initiative -Proposal
Five Year Financial Projections

	Type	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Totals
Other							
Office Space Lease	indirect	29,250	29,250	29,250	29,250	29,250	146,250
Training and Training Travel	indirect	15,000	5,000	5,000	5,000	5,000	35,000
Supplies and Miscellaneous	indirect	5,000	5,000	5,000	5,000	5,000	25,000
Administrative /Overhead <i>(at 8% excluding technology contract)</i>	overhead	79,964	84,669	79,675	80,877	82,222	407,407
Total Other Expenses		129,214	123,919	118,925	120,127	121,472	613,657
Total Projected Expenses		\$ 3,579,513	\$ 1,643,034	\$ 1,575,616	\$ 1,591,838	\$ 1,609,999	\$ 10,000,000

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
0	Smart Cities Challenge Implementation Plan	28,740.42 hrs	1409.37 days	Tue 19-09-03	Wed 24-11-20		
1	Governance	775 hrs	1380 days	Tue 19-09-03	Thu 24-10-10		
1.1	Refine and finalize governance model for project implementation	7 hrs	5 days	Tue 19-09-03	Mon 19-09-09		Risk Privacy and Governance CoA[19%]
1.2	Create partnership agreements	20 hrs	10 days	Mon 19-09-09	Mon 19-09-23		2 Risk Privacy and Governance CoA[27%]
1.3	Legal Review of partnership agreement	37 hrs	35 days	Mon 19-09-23	Thu 19-11-07		3 Legal Review
1.4	Set up Program Steering Committee Structure	7 hrs	2 days	Thu 19-11-07	Tue 19-11-12		4 Risk Privacy and Governance CoA[47%]
1.5	Create Terms of Reference	20 hrs	10 days	Tue 19-11-12	Tue 19-11-26		5 Risk Privacy and Governance CoA[27%]
1.6	Set up project team	12 hrs	10 days	Tue 19-11-26	Mon 19-12-09		
1.6.1	Confirm project roles	6 hrs	5 days	Tue 19-11-26	Mon 19-12-02		6 Program Steering Committee[16%]
1.6.2	Determine staffing for project roles	6 hrs	5 days	Mon 19-12-02	Mon 19-12-09		8 Program Steering Committee[16%]
1.7	Determine organization agnostic tools for project use	16 hrs	5 days	Tue 19-09-03	Mon 19-09-09		
1.7.1	Determine document storage area &/or tools	6 hrs	3 days	Tue 19-09-03	Thu 19-09-05		Program Steering Committee[27%]
1.7.2	Identify retention periods for AAHC requirements and CoA requirements	10 hrs	5 days	Tue 19-09-03	Mon 19-09-09		Risk Privacy and Governance CoA[27%]
1.8	Signature Approvals of partnership agreement	2 hrs	5 days	Thu 19-11-07	Fri 19-11-15		4 Risk Privacy and Governance CoA[5%]
1.9	Annual External Audit of Funding Use	375 hrs	1115 days	Fri 20-08-28	Thu 24-10-10		
1.9.1	Year 1 audit	75 hrs	15 days	Fri 20-08-28	Fri 20-09-18	2FS+260 days	External Financial Auditors
1.9.2	Year 2 audit	75 hrs	15 days	Fri 21-09-10	Thu 21-09-30	15FS+260 days	External Financial Auditors
1.9.3	Year 3 audit	75 hrs	15 days	Fri 22-09-16	Thu 22-10-06	16FS+260 days	External Financial Auditors
1.9.4	Year 4 Audit	75 hrs	15 days	Mon 23-09-18	Fri 23-10-06	17FS+260 days	External Financial Auditors
1.9.5	Year 5 Audit	75 hrs	15 days	Fri 24-09-20	Thu 24-10-10	18FS+260 days	External Financial Auditors
1.1	Annual Community Employment Benefit Tracking and Reporting	110 hrs	1065 days	Fri 20-08-28	Mon 24-08-05		
1.10.1	Tracking, assembling & reporting data	22 hrs	5 days	Fri 20-08-28	Fri 20-09-04	2FS+260 days	Intergovernmental Liaison CoA[61%]
1.10.2	Tracking, assembling & reporting data	22 hrs	5 days	Thu 21-08-26	Thu 21-09-02	21FS+260 days	Intergovernmental Liaison CoA[61%]
1.10.3	Tracking, assembling & reporting data	22 hrs	5 days	Fri 22-08-19	Thu 22-08-25	22FS+260 days	Intergovernmental Liaison CoA[61%]
1.10.4	Tracking, assembling & reporting data	22 hrs	5 days	Tue 23-08-08	Tue 23-08-15	23FS+260 days	Intergovernmental Liaison CoA[61%]
1.10.5	Tracking, assembling & reporting data	22 hrs	5 days	Tue 24-07-30	Mon 24-08-05	24FS+260 days	Intergovernmental Liaison CoA[61%]
1.11	Community Operating System (COS) Governance	169 hrs	125.73 days	Fri 20-09-11	Thu 21-03-04		
1.11.1	Determine COS governance scope	10 hrs	5 days	Fri 20-09-11	Fri 20-09-18	13FS+220 days	Risk Privacy and Governance CoA[27%]
1.11.2	Determine requirements	10 hrs	5 days	Fri 20-09-18	Fri 20-09-25		27 Risk Privacy and Governance CoA[27%]
1.11.3	Procurement for Foundation Governance Consultant	43 hrs	38.73 days	Fri 20-09-25	Wed 20-11-18		
1.11.3.1	Prepare & Gather Quotes	7 hrs	6 days	Fri 20-09-25	Fri 20-10-02		
1.11.3.1.1	Provide requirements sheet and supporting documentation for quotes	2 hrs	1 day	Fri 20-09-25	Mon 20-09-28		28 Risk Privacy and Governance CoA[27%]
1.11.3.1.2	Contact consultants for quotes and provide scope of work and requirements	5 hrs	5 days	Mon 20-09-28	Fri 20-10-02		31 Risk Privacy and Governance CoA[13%]
1.11.3.2	Evaluation of Quotes	7 hrs	5.13 days	Fri 20-10-02	Fri 20-10-09		
1.11.3.2.1	Complete evaluation ensuring responses satisfy the defined acceptance criteria	6 hrs	5 days	Fri 20-10-02	Fri 20-10-09		32 Risk Privacy and Governance CoA[16%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
1.11.3.2.2	Discuss results and discrepancies from evaluations	1 hr	1 hr	Fri 20-10-09	Fri 20-10-09		34 Risk Privacy and Governance CoA
1.11.3.3	Reference checks	5.5 hrs	0.73 days	Fri 20-10-02	Mon 20-10-05		
1.11.3.3.1	Prepare reference check questions	1 hr	1 hr	Fri 20-10-02	Fri 20-10-02		32 Risk Privacy and Governance CoA
1.11.3.3.2	Schedule reference checks	1 hr	1 hr	Fri 20-10-02	Mon 20-10-05		37 Risk Privacy and Governance CoA
1.11.3.3.3	Perform reference checks - ask questions	3 hrs	3 hrs	Mon 20-10-05	Mon 20-10-05		38 Risk Privacy and Governance CoA
1.11.3.3.4	Determine Successful proponent	0.5 hrs	0.5 hrs	Mon 20-10-05	Mon 20-10-05		39 Risk Privacy and Governance CoA
1.11.3.4	Tentative award	7.5 hrs	1 day	Mon 20-10-05	Tue 20-10-06		40 Procurement CoA
1.11.3.5	Approval of vendor	1 hr	1 day	Tue 20-10-06	Wed 20-10-07		41 Risk Privacy and Governance CoA[13%]
1.11.3.6	Negotiate contract	15 hrs	30 days	Wed 20-10-07	Wed 20-11-18		42 Procurement CoA[7%]
1.11.3.7	Award contract	0 hrs	0 days	Wed 20-11-18	Wed 20-11-18		43 Procurement CoA[7%]
1.11.4	Consultant Report Creation	80 hrs	30 days	Wed 20-11-18	Wed 20-12-30		43 Foundation Consultant[36%]
1.11.5	Review consultant COS governance report	3 hrs	1 day	Wed 20-12-30	Thu 20-12-31		45 Risk Privacy and Governance CoA[40%]
1.11.6	Legal Review of governance recommendations	20 hrs	45 days	Thu 20-12-31	Wed 21-03-03		46 Legal Review
1.11.7	Determine COS governance model	3 hrs	1 day	Wed 21-03-03	Thu 21-03-04		47 Program Steering Committee[40%]
2	Initiate	40 hrs	11.96 days	Fri 19-11-15	Mon 19-12-02		
2.1	Needs assessment	28 hrs	8.96 days	Fri 19-11-15	Wed 19-11-27		
2.1.1	Confirm objectives	14 hrs	5 days	Fri 19-11-15	Fri 19-11-22		13 Business Analyst[37%]
2.1.2	Determine Stakeholders	6 hrs	2.16 days	Fri 19-11-22	Tue 19-11-26		51 Business Analyst[37%]
2.1.3	Determine scope	6 hrs	0.8 days	Tue 19-11-26	Wed 19-11-27		52 Project Manager
2.1.4	Create project charter	2 hrs	1 day	Wed 19-11-27	Wed 19-11-27	51,52,53	Project Manager[37%]
2.2	Program Steering Committee approval of project	2 hrs	2 days	Wed 19-11-27	Fri 19-11-29		54 Program Steering Committee[13%]
							Business Analyst[27%], Communications CoA[27%], Data Analyst[27%], Developer 1[27%], Developer 2[27%], Program Manager[27%], Program Steering Committee[27%], Project Manager[27%], Technology and Security SME AAHC[27%], Technology and Security SME CoA[27%]
2.3	Project kick-off	10 hrs	1 day	Fri 19-11-29	Mon 19-12-02		55 Manager[27%], Program Steering Committee[27%], Project Manager[27%], Technology and Security SME AAHC[27%], Technology and Security SME CoA[27%]
3	Assess/Envisioning	1,380.92 hrs	309.5 days	Tue 19-09-03	Thu 20-10-29		
3.1	Perform stakeholder assessment	6 hrs	3 days	Fri 19-11-29	Wed 19-12-04		55 Business Analyst[27%]
3.2	Phase 1 Engagement & Communications	350 hrs	78 days	Wed 19-12-04	Fri 20-03-20		
3.2.1	Planning stakeholder assessment and plan	40 hrs	20 days	Wed 19-12-04	Fri 20-01-03		
3.2.1.1	Public consultation - key stakeholder meetings	22 hrs	10 days	Wed 19-12-04	Wed 19-12-18		58 Communications and Engagement Consultant[80%]
3.2.1.2	Plan development	18 hrs	10 days	Wed 19-12-18	Fri 20-01-03		61 Communications and Engagement Consultant
3.2.2	Visioning & ideas for COS	310 hrs	58 days	Fri 20-01-03	Fri 20-03-20		
3.2.2.1	Communications & promotions	56 hrs	10 days	Fri 20-01-03	Thu 20-01-16		62 Communications and Engagement Consultant[13%]
3.2.2.2	Open House(s)	68 hrs	15 days	Thu 20-01-16	Wed 20-02-05		64 Communications and Engagement Consultant[13%]
3.2.2.3	Key stakeholder meetings	44 hrs	8 days	Wed 20-02-05	Tue 20-02-18		65 Communications and Engagement Consultant[13%]
3.2.2.4	Streeter surveys	22 hrs	5 days	Tue 20-02-18	Tue 20-02-25		66 Communications and Engagement Consultant[13%]
3.2.2.5	Pop-ups	58 hrs	10 days	Tue 20-02-25	Mon 20-03-09		67 Communications and Engagement Consultant[13%]
3.2.2.6	Online tool	34 hrs	5 days	Mon 20-03-09	Mon 20-03-16		68 Communications and Engagement Consultant[13%]
3.2.2.7	Kiosks	8 hrs	2 days	Mon 20-03-16	Tue 20-03-17		69 Communications and Engagement Consultant[13%]
3.2.2.8	Phase 1 - what we heard report	20 hrs	3 days	Tue 20-03-17	Fri 20-03-20		70 Communications and Engagement Consultant[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
3.3	Requirements gathering	182 hrs	45 days	Fri 20-01-03	Wed 20-03-04		
3.3.1	Gather detailed requirements and priorities	160 hrs	30 days	Fri 20-01-03	Wed 20-02-12		62 Business Analyst[71%]
3.3.2	Information Governance & Management requirements and priorities	5 hrs	5 days	Wed 20-02-12	Thu 20-02-20		73 Business Analyst[13%]
3.3.3	IT requirements and priorities	5 hrs	5 days	Thu 20-02-20	Wed 20-02-26		74 Business Analyst[13%]
3.3.4	Validate mandatory requirements	4 hrs	2 days	Wed 20-02-26	Fri 20-02-28	73,74,75	Business Analyst[27%]
3.3.5	Final requirements review	6 hrs	2 days	Fri 20-02-28	Tue 20-03-03		76 Business Analyst[40%]
3.3.6	Requirements approval	2 hrs	1 day	Tue 20-03-03	Wed 20-03-04		77 Business Analyst[27%]
3.4	Create business case	62 hrs	30 days	Wed 20-03-04	Wed 20-04-15		
3.4.1	Create project vision	10 hrs	5 days	Wed 20-03-04	Wed 20-03-11		78 Business Analyst
3.4.2	Ensure objectives are measurable	10 hrs	5 days	Wed 20-03-11	Tue 20-03-17		80 Business Analyst[27%]
3.4.3	Add detail to project scope	2 hrs	5 days	Tue 20-03-17	Tue 20-03-24		81 Project Manager[5%]
3.4.4	Add project specific information into the business case	10 hrs	5 days	Tue 20-03-24	Tue 20-03-31		82 Business Analyst[27%]
3.4.5	Document use cases	30 hrs	10 days	Tue 20-03-31	Wed 20-04-15		83 Business Analyst[40%]
3.5	Program Steering Committee review & approval of business case	6 hrs	0.71 days	Wed 20-04-15	Thu 20-04-16		
3.5.1	Program Steering Committee review	4 hrs	0.47 days	Wed 20-04-15	Thu 20-04-16		79 Program Steering Committee[13%],Project Manager
3.5.2	Program Steering Committee approval	2 hrs	0.24 days	Thu 20-04-16	Thu 20-04-16		86 Program Steering Committee[13%],Project Manager
3.6	BSA Stage 1	2 hrs	1 day	Wed 20-03-04	Thu 20-03-05		78 Corporate Information Governance Leads CoA[27%]
3.7	Rfx Procurement	700.92 hrs	104.83 days	Thu 20-04-16	Thu 20-09-03		85
3.7.1	Prepare & Post Rfx	36 hrs	56.13 days	Thu 20-04-16	Thu 20-07-02		
3.7.1.1	Submit formal bid request to procurement	1 hr	1 day	Thu 20-04-16	Fri 20-04-17		85 Project Manager[13%]
3.7.1.2	Build Rfx document	30 hrs	20 days	Fri 20-04-17	Thu 20-05-14		91 Procurement CoA[20%]
3.7.1.3	Provide requirements sheet and supporting documentation for Rfx	2 hrs	2 hrs	Fri 20-04-17	Fri 20-04-17		91 Project Manager
3.7.1.4	Post Rfx	1 hr	1 hr	Thu 20-05-14	Thu 20-05-14		92 Procurement CoA[50%]
3.7.1.5	Rfx posting period	0 hrs	35 days	Thu 20-05-14	Thu 20-07-02		94
3.7.1.6	Create evaluation scorecard	2 hrs	2 hrs	Thu 20-05-14	Thu 20-05-14		92 Procurement CoA
3.7.2	Stage 1 evaluation - mandatory	69.5 hrs	41.27 days	Thu 20-05-14	Thu 20-07-09		
3.7.2.1	Remove pricing information from RFP responses	4 hrs	4 hrs	Thu 20-07-02	Thu 20-07-02		95 Procurement CoA
3.7.2.2	Place responses in the project folder	1 hr	1 hr	Thu 20-07-02	Thu 20-07-02		98 Procurement CoA
3.7.2.3	Filter responses to those meeting all mandatory requirements based on vendor responses	1 hr	1 hr	Thu 20-07-02	Thu 20-07-02		99 Procurement CoA
3.7.2.4	Create mandatory requirements evaluation sheets with acceptance criteria	4 hrs	4 hrs	Thu 20-05-14	Thu 20-05-14		94 Project Manager
3.7.2.5	Email evaluators PDF of mandatory requirement responses and business unit evaluation sheet	1 hr	1 hr	Thu 20-07-02	Thu 20-07-02		100,101 Project Manager
3.7.2.6	Complete mandatory evaluation ensuring responses satisfy the defined acceptance criteria	50 hrs	5 days	Thu 20-07-02	Thu 20-07-09		102 Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Technology and Security SME AAHC,Program Manager,Project Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
3.7.2.7	Discuss results and discrepancies from stage 1 evaluation	7 hrs	1 hr	Thu 20-07-09	Thu 20-07-09	103	Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Technology and Security SME AAHC,Program Manager,Project Manager,Procurement CoA
3.7.2.8	Update evaluation spreadsheet with stage 1 results	1 hr	1 hr	Thu 20-07-09	Thu 20-07-09	104	Project Manager
3.7.2.9	PDF evaluation spreadsheet	0.5 hrs	0.5 hrs	Thu 20-07-09	Thu 20-07-09	105	Project Manager
3.7.3	Stage 2 evaluation - core business requirements	75.83 hrs	48.84 days	Thu 20-05-14	Mon 20-07-20		
3.7.3.1	Create evaluation sheets with acceptance criteria	4 hrs	4 hrs	Thu 20-05-14	Thu 20-05-14	94	Project Manager
3.7.3.2	Update evaluation sheets with proponent scores	1 hr	1 hr	Thu 20-07-09	Fri 20-07-10	106	Project Manager
3.7.3.3	Email evaluators PDF of core business requirement responses and evaluation sheet	1 hr	1 day	Fri 20-07-10	Fri 20-07-10	109	Project Manager
3.7.3.4	Complete requirement evaluation sheet ensuring responses satisfy acceptance criteria	50 hrs	5 days	Fri 20-07-10	Fri 20-07-17	110	Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Technology and Security SME AAHC,Program Manager,Project Manager
3.7.3.5	Meet with evaluators to discuss large disparities in scores	7 hrs	1 hr	Fri 20-07-17	Fri 20-07-17	111	Business Analyst[13%],Corporate Information Governance Leads CoA[13%],Developer 1[13%],Technology and Security SME AAHC[13%],Program Manager[13%],Project Manager[13%],Procurement CoA
3.7.3.6	Adjust scores based on common understanding	7 hrs	1 hr	Fri 20-07-17	Fri 20-07-17	112	Business Analyst[13%],Corporate Information Governance Leads CoA[13%],Developer 1[13%],Technology and Security SME AAHC[13%],Program Manager[13%],Project Manager[13%],Procurement CoA
3.7.3.7	Update evaluation spreadsheet with stage 2 scores	1 hr	1 day	Fri 20-07-17	Mon 20-07-20	113	Project Manager
3.7.3.8	Discuss results from stage 2	3.5 hrs	30 mins	Mon 20-07-20	Mon 20-07-20	114	Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Technology and Security SME AAHC,Procurement CoA,Program Manager,Project Manager
3.7.3.9	Filter proponents to only those meeting % of business requirements	0.25 hrs	15 mins	Mon 20-07-20	Mon 20-07-20	115	Project Manager
3.7.3.10	Determine proponents proceeding to stage 3	1 hr	30 mins	Mon 20-07-20	Mon 20-07-20	116	Procurement CoA,Program Manager
3.7.3.11	PDF evaluation spreadsheet	0.08 hrs	5 mins	Mon 20-07-20	Mon 20-07-20	117	Project Manager
3.7.4	Stage 3 evaluation - other requirements, corporate evaluation	167.83 hrs	54.99 days	Thu 20-05-14	Tue 20-07-28		
3.7.4.1	Other rated requirements	84 hrs	54.9 days	Thu 20-05-14	Tue 20-07-28		
3.7.4.1.1	Create evaluation sheets with acceptance criteria	4 hrs	1 day	Thu 20-05-14	Fri 20-05-15	94	Project Manager
3.7.4.1.2	Update evaluation sheets with proponent scores	4 hrs	4 hrs	Mon 20-07-20	Tue 20-07-21	117,121	Project Manager
3.7.4.1.3	Email evaluators PDF of business requirement responses and evaluation sheets	1 hr	1 hr	Tue 20-07-21	Tue 20-07-21	122	Project Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
3.7.4.1.4	Complete requirement evaluation sheet ensuring responses satisfy acceptance criteria	60 hrs	5 days	Tue 20-07-21	Tue 20-07-28	123	Business Analyst[27%],Corporate Information Governance Leads CoA[27%],Developer 1[27%],Technology and Security SME AAHC[27%],Program Manager[27%],Project Manager[27%]
3.7.4.1.5	Meet with evaluators to discuss large disparities in scores	7 hrs	1 hr	Tue 20-07-28	Tue 20-07-28	124	Business Analyst[13%],Corporate Information Governance Leads CoA[13%],Developer 1[13%],Technology and Security SME AAHC[13%],Program Manager[13%],Project Manager[13%],Procurement CoA[13%]
3.7.4.1.6	Adjust scores based on common understanding	7 hrs	1 hr	Tue 20-07-28	Tue 20-07-28	125	Business Analyst[13%],Corporate Information Governance Leads CoA[13%],Developer 1[13%],Technology and Security SME AAHC[13%],Program Manager[13%],Project Manager[13%],Procurement CoA[13%]
3.7.4.1.7	Update evaluation spreadsheet with rated requirements scores	1 hr	1 hr	Tue 20-07-28	Tue 20-07-28	126	Project Manager
3.7.4.2	Corporate evaluation	80 hrs	54.37 days	Thu 20-05-14	Tue 20-07-28		
3.7.4.2.1	Create evaluation sheets for corporate evaluations	4 hrs	4 hrs	Thu 20-05-14	Thu 20-05-14	94	Project Manager
3.7.4.2.2	Email evaluators corporate evaluation sheets	1 hr	1 hr	Mon 20-07-20	Tue 20-07-21	117,129	Project Manager
3.7.4.2.3	Complete corporate evaluation	60 hrs	5 days	Tue 20-07-21	Mon 20-07-27	130	Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Technology and Security SME AAHC,Program Manager,Project Manager
3.7.4.2.4	Meet with evaluators to discuss large disparities in scores	7 hrs	1 hr	Mon 20-07-27	Mon 20-07-27	131	Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Procurement CoA,Program Manager,Project Manager,Technology and Security SME AAHC
3.7.4.2.5	Adjust scores based on common understanding	7 hrs	1 hr	Mon 20-07-27	Tue 20-07-28	132	Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Procurement CoA,Program Manager,Project Manager,Technology and Security SME AAHC
3.7.4.2.6	Update evaluation spreadsheet with corporate evaluation scores	1 hr	1 hr	Tue 20-07-28	Tue 20-07-28	133	Project Manager
3.7.4.3	Discuss results from stage 3	3.5 hrs	30 mins	Tue 20-07-28	Tue 20-07-28	127,134	Business Analyst,Developer 1,Technology and Security SME AAHC,Procurement CoA,Program Manager,Project Manager,Corporate Information Governance Leads CoA
3.7.4.4	Determine proponents proceeding to stage 4	0.25 hrs	7.5 mins	Tue 20-07-28	Tue 20-07-28	135	Procurement CoA,Project Manager
3.7.4.5	PDF evaluation spreadsheet	0.08 hrs	5 mins	Tue 20-07-28	Tue 20-07-28	136	Project Manager
3.7.5	Stage 4 evaluation - reference checks	8.58 hrs	56.16 days	Thu 20-05-14	Wed 20-07-29		
3.7.5.1	Prepare reference check questions	3 hrs	1 hr	Thu 20-05-14	Thu 20-05-14	94	Procurement CoA,Project Manager,Program Manager
3.7.5.2	Schedule reference checks	1 hr	1 day	Tue 20-07-28	Wed 20-07-29	136,139	Project Manager
3.7.5.3	Perform reference checks - ask questions	3 hrs	1 hr	Wed 20-07-29	Wed 20-07-29	140	Procurement CoA,Project Manager,Program Manager
3.7.5.4	Take notes regarding responses	1 hr	1 hr	Wed 20-07-29	Wed 20-07-29	140	Project Manager
3.7.5.5	Update evaluation spreadsheet with reference check results	0.5 hrs	15 mins	Wed 20-07-29	Wed 20-07-29	142	Procurement CoA,Project Manager
3.7.5.6	PDF evaluation spreadsheet	0.08 hrs	5 mins	Wed 20-07-29	Wed 20-07-29	143	Project Manager
3.7.6	Stage 5 evaluation - demonstrations	263.58 hrs	21.54 days	Tue 20-07-28	Tue 20-08-25		

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
3.7.6.1	Create demonstration package	45 hrs	7.13 days	Tue 20-07-28	Thu 20-08-06		Business Analyst,Corporate Information Governance Leads CoA,Developer
3.7.6.1.1	Meet with project team to discuss scenarios for the demonstration	14 hrs	1 day	Tue 20-07-28	Wed 20-07-29	127,117	1,Technology and Security SME AAHC,Procurement CoA,Program Manager,Project Manager
3.7.6.1.2	Document scenarios	20 hrs	5 days	Wed 20-07-29	Wed 20-08-05	147	Business Analyst[53%],Project Manager[53%]
3.7.6.1.3	Determine scenario and break schedule	4 hrs	1 day	Wed 20-08-05	Thu 20-08-06	148	Project Manager
3.7.6.1.4	Review and approve demonstration package	7 hrs	1 hr	Thu 20-08-06	Thu 20-08-06	149	Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Technology and Security SME AAHC,Procurement CoA,Program Manager,Project Manager
3.7.6.2	Schedule demonstrations	1 hr	1 day	Tue 20-07-28	Wed 20-07-29	136	Project Manager
3.7.6.3	Send demonstration packages to proponents	1 hr	1 hr	Thu 20-08-06	Thu 20-08-06	150,151	Project Manager
3.7.6.4	Demonstration preparation period	20 hrs	10 days	Thu 20-08-06	Wed 20-08-19	152	Vendor[27%]
3.7.6.5	Create demonstration evaluation sheets	4 hrs	4 hrs	Thu 20-08-06	Thu 20-08-06	150	Project Manager
3.7.6.6	Determine scoring matrix	1 hr	0.5 hrs	Thu 20-08-06	Thu 20-08-06	150	Procurement CoA,Project Manager
3.7.6.7	Meet with evaluators to review demonstration process and scoring matrix	7 hrs	1 hr	Thu 20-08-06	Thu 20-08-06	155	Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Technology and Security SME AAHC,Procurement CoA,Program Manager,Project Manager
3.7.6.8	Demonstration Logistics	4 hrs	2.13 days	Wed 20-07-29	Fri 20-07-31		
3.7.6.8.1	Schedule rooms	1 hr	1 day	Wed 20-07-29	Thu 20-07-30	151	Project Manager
3.7.6.8.2	Coordinate snacks and water	2 hrs	1 day	Thu 20-07-30	Fri 20-07-31	158	Project Manager
3.7.6.8.3	Order lunch (opt)	1 hr	1 hr	Fri 20-07-31	Fri 20-07-31	159	Project Manager
3.7.6.9	Attend and evaluate vendor demonstrations	147 hrs	3 days	Wed 20-08-19	Mon 20-08-24	153,154,156	Business Analyst[93%],Developer 1[93%],Technology and Security SME AAHC[93%],Procurement CoA[93%],Program Manager[93%],Project Manager[93%],Corporate Information Governance Leads CoA
3.7.6.10	Meet with evaluators to discuss large disparities in scores	28 hrs	1 day	Mon 20-08-24	Tue 20-08-25	161	Business Analyst[93%],Developer 1[93%],Technology and Security SME AAHC[93%],Procurement CoA[93%],Program Manager[93%],Project Manager[93%],Corporate Information Governance Leads CoA[93%]
3.7.6.11	Update evaluation spreadsheet with stage 5 scores	1 hr	1 hr	Tue 20-08-25	Tue 20-08-25	162	Project Manager
3.7.6.12	Discuss results from stage 5	3.5 hrs	30 mins	Tue 20-08-25	Tue 20-08-25	163	Business Analyst,Corporate Information Governance Leads CoA,Developer 1,Technology and Security SME AAHC,Procurement CoA,Program Manager,Project Manager
3.7.6.13	Determine proponents proceeding to stage 6	1 hr	30 mins	Tue 20-08-25	Tue 20-08-25	164	Procurement CoA,Project Manager
3.7.6.14	PDF evaluation spreadsheet	0.08 hrs	5 mins	Tue 20-08-25	Tue 20-08-25	165	Project Manager
3.7.7	Stage 6 evaluation - pricing	77.58 hrs	6.28 days	Tue 20-08-25	Wed 20-09-02		
3.7.7.1	Create spreadsheet comparing total cost of ownership	2 hrs	1 day	Tue 20-08-25	Wed 20-08-26	165	Project Manager[27%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
3.7.7.2	Evaluate pricing and assign scores	70 hrs	5 days	Wed 20-08-26	Wed 20-09-02	168	Business Analyst[27%], Corporate Information Governance Leads CoA[27%], Developer 1[27%], Technology and Security SME AAHC[27%], Procurement CoA[27%], Program Manager[27%], Project Manager[27%]
3.7.7.3	Update evaluation spreadsheet with stage 6 scores	1 hr	1 hr	Wed 20-09-02	Wed 20-09-02	169	Project Manager
3.7.7.4	Discuss results from stage 6	3.5 hrs	30 mins	Wed 20-09-02	Wed 20-09-02	170	Business Analyst, Corporate Information Governance Leads CoA, Developer 1, Technology and Security SME AAHC, Procurement CoA, Program Manager, Project Manager
3.7.7.5	Determine successful proponent	1 hr	30 mins	Wed 20-09-02	Wed 20-09-02	171	Procurement CoA, Project Manager
3.7.7.6	PDF evaluation spreadsheet	0.08 hrs	5 mins	Wed 20-09-02	Wed 20-09-02	172	Project Manager
3.7.8	Tentative award	2 hrs	1 day	Wed 20-09-02	Thu 20-09-03	172	Procurement CoA[27%]
3.8	BSA Stage 2	6 hrs	2 hrs	Wed 20-09-02	Wed 20-09-02	172	Corporate Information Governance Leads CoA, Project Manager, Risk Privacy and Governance CoA
3.9	Solution approval	3 hrs	1 day	Wed 20-09-02	Thu 20-09-03	175	Corporate Information Governance Leads CoA[13%], Program Manager[13%], Risk Privacy and Governance CoA[13%]
3.1	Negotiate contract	15 hrs	30 days	Thu 20-09-03	Thu 20-10-15	174	Procurement CoA[7%]
3.11	Legislative Services review of contract	20 hrs	10 days	Thu 20-10-15	Thu 20-10-29	177	Risk Privacy and Governance CoA[40%]
3.12	Confirm sizing and resourcing needs for the project	4 hrs	1 day	Wed 20-09-02	Thu 20-09-03	172	Project Manager, Program Manager
3.13	PIA/PRA	4 hrs	30.27 days	Wed 20-09-02	Thu 20-10-15		
3.13.1	Update existing PIA/PRA	2 hrs	1 hr	Wed 20-09-02	Wed 20-09-02	172	Project Manager, Risk Privacy and Governance CoA
3.13.2	Submit PIA	1 hr	30 days	Wed 20-09-02	Wed 20-10-14	181	Risk Privacy and Governance CoA[0%]
3.13.3	PIA/PRA accepted by OIPC	1 hr	0.13 days	Wed 20-10-14	Thu 20-10-15	182	Risk Privacy and Governance CoA
3.14	Add detail to project schedule for implement and go-live phases	14 hrs	3 days	Thu 20-09-03	Wed 20-09-09	179	Project Manager[93%]
3.15	Financial setup for project	5 hrs	299.9 days	Tue 19-09-03	Fri 20-10-16		
3.15.1	Create GL cost centre	1 hr	1 hr	Tue 19-09-03	Tue 19-09-03		Finance CoA
3.15.2	Move funds from pool to project GL	1 hr	1 hr	Tue 19-09-03	Tue 19-09-03	186	Finance CoA
3.15.3	Complete paperwork required for Paramount (opt)	1 hr	1 hr	Thu 20-10-15	Thu 20-10-15	177	Project Manager
3.15.4	Create vendor in Paramount (opt)	1 hr	1 hr	Thu 20-10-15	Fri 20-10-16	188	Finance CoA
3.15.5	Create PO in Paramount	1 hr	1 hr	Fri 20-10-16	Fri 20-10-16	189	Project Manager
3.16	Execute contract	1 hr	2 days	Tue 20-10-16	Tue 20-10-20	190	Procurement CoA[7%]
4	Implement	24,481.5 hrs	1342.41 days	Mon 19-12-02	Wed 24-11-20		
4.1	Community Operating System (COS)	3,753.5 hrs	1107.47 days	Tue 20-10-20	Wed 24-11-20		
4.1.1	Design	300 hrs	40 days	Tue 20-10-20	Fri 20-12-11	191	Vendor
4.1.2	Design complete	7.5 hrs	1 day	Fri 20-12-11	Mon 20-12-14	194	Vendor
4.1.3	Development/Configuration	922 hrs	123 days	Mon 20-12-14	Wed 21-06-02	195	Vendor
4.1.4	Testing	35 hrs	5 days	Wed 21-06-02	Wed 21-06-09	196	Vendor[93%]
4.1.5	Redevelopment for bug fixes	37.5 hrs	5 days	Wed 21-06-09	Wed 21-06-16	197	Vendor
4.1.6	Retesting	37.5 hrs	5 days	Wed 21-06-16	Tue 21-06-22	198	Vendor
4.1.7	Testing passed	2 hrs	0.27 days	Tue 21-06-22	Wed 21-06-23	199	Vendor
4.1.8	Training	35 hrs	5 days	Wed 21-06-23	Tue 21-06-29	200	Vendor[93%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.1.9	BSA Stage 3	1 hr	1 day	Tue 21-06-29	Wed 21-06-30		201 Vendor[13%]
4.1.10	Gap analysis	5 hrs	1 day	Tue 21-06-29	Wed 21-06-30		201 Vendor[67%]
4.1.11	UAT sign-off	2 hrs	0.13 days	Tue 21-06-29	Tue 21-06-29		201 Technology and Security SME CoA,Technology and Security SME AAHC
4.1.12	Go Live	14 hrs	5 days	Tue 21-06-29	Wed 21-07-07		
4.1.12.1	Go live plan	7 hrs	1 day	Tue 21-06-29	Wed 21-06-30		204 Vendor[93%]
4.1.12.2	Go-live plan approved	1 hr	1 day	Wed 21-06-30	Fri 21-07-02		206 Vendor[13%]
4.1.12.3	CAB Submission Preparation	3 hrs	1 day	Fri 21-07-02	Mon 21-07-05		207 Vendor[40%]
4.1.12.4	CAB Approval	2 hrs	1 day	Mon 21-07-05	Tue 21-07-06		208 Technology and Security SME CoA[13%],Technology and Security SME AAHC
4.1.12.5	Launch solution	1 hr	1 day	Tue 21-07-06	Wed 21-07-07		209 Vendor[13%]
4.1.13	COS Dashboard V1	649 hrs	101.77 days	Wed 21-07-07	Tue 21-11-23		
4.1.13.1	Design	150 hrs	20 days	Wed 21-07-07	Tue 21-08-03		210 Vendor
4.1.13.2	Development/Configure	347 hrs	46.27 days	Tue 21-08-03	Mon 21-10-04		212 Vendor
4.1.13.3	Testing	20 hrs	5 days	Mon 21-10-04	Tue 21-10-12		213 Vendor[37%]
4.1.13.4	Redevelopment for bug fixes	14 hrs	5 days	Tue 21-10-12	Tue 21-10-19		214 Vendor[37%]
4.1.13.5	Retesting	14 hrs	5 days	Tue 21-10-19	Mon 21-10-25		215 Vendor[37%]
4.1.13.6	Training	14 hrs	5 days	Mon 21-10-25	Mon 21-11-01		216 Vendor[37%]
4.1.13.7	UAT sign-off	2 hrs	1 day	Mon 21-11-01	Tue 21-11-02		217 Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.1.13.8	Go Live	88 hrs	14.5 days	Tue 21-11-02	Tue 21-11-23		
4.1.13.8.1	Go live plan	7 hrs	1 day	Tue 21-11-02	Wed 21-11-03		218 Vendor[93%]
4.1.13.8.2	Go-live plan approved	1 hr	1 day	Wed 21-11-03	Thu 21-11-04		220 Vendor[13%]
4.1.13.8.3	CAB Submission Preparation	3 hrs	1 day	Thu 21-11-04	Fri 21-11-05		221 Vendor[40%]
4.1.13.8.4	CAB Approval	1 hr	0.5 days	Fri 21-11-05	Fri 21-11-05		222 Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.1.13.8.5	Launch solution	1 hr	1 day	Fri 21-11-05	Mon 21-11-08		223 Vendor[13%]
4.1.13.8.6	Communications and support	75 hrs	10 days	Mon 21-11-08	Tue 21-11-23		224 Communications and Engagement Consultant
4.1.14	COS Upgrades & Dashboard V2	569 hrs	92.27 days	Thu 22-07-21	Wed 22-11-23		
4.1.14.1	Design	150 hrs	20 days	Thu 22-07-21	Wed 22-08-17	225FS+180 days	Vendor
4.1.14.2	Development/Configure	347 hrs	46.27 days	Wed 22-08-17	Tue 22-10-18		227 Vendor
4.1.14.3	Testing	14 hrs	5 days	Tue 22-10-18	Tue 22-10-25		228 Vendor[37%]
4.1.14.4	Redevelopment for bug fixes	14 hrs	5 days	Tue 22-10-25	Tue 22-11-01		229 Vendor[37%]
4.1.14.5	Retesting	14 hrs	5 days	Tue 22-11-01	Mon 22-11-07		230 Vendor[37%]
4.1.14.6	Training	14 hrs	5 days	Mon 22-11-07	Tue 22-11-15		231 Vendor[37%]
4.1.14.7	UAT sign-off	2 hrs	1 day	Tue 22-11-15	Wed 22-11-16		232 Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.1.14.8	Go Live	14 hrs	5 days	Wed 22-11-16	Wed 22-11-23		
4.1.14.8.1	Go live plan	7 hrs	1 day	Wed 22-11-16	Thu 22-11-17		233 Vendor[93%]
4.1.14.8.2	Go-live plan approved	1 hr	1 day	Thu 22-11-17	Fri 22-11-18		235 Vendor[13%]
4.1.14.8.3	CAB Submission Preparation	3 hrs	1 day	Fri 22-11-18	Mon 22-11-21		236 Vendor[40%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.1.14.8.4	CAB Approval	2 hrs	1 day	Mon 22-11-21	Tue 22-11-22	237	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.1.14.8.5	Launch solution	1 hr	1 day	Tue 22-11-22	Wed 22-11-23	238	Vendor[13%]
4.1.15	COS Upgrades & Dashboard V3	568 hrs	91.77 days	Thu 23-07-20	Mon 23-11-20		
4.1.15.1	Design	150 hrs	20 days	Thu 23-07-20	Tue 23-08-15	239FS+180 days	Vendor
4.1.15.2	Development/Configure	347 hrs	46.27 days	Tue 23-08-15	Tue 23-10-17	241	Vendor
4.1.15.3	Testing	14 hrs	5 days	Tue 23-10-17	Mon 23-10-23	242	Vendor[37%]
4.1.15.4	Redevelopment for bug fixes	14 hrs	5 days	Mon 23-10-23	Mon 23-10-30	243	Vendor[37%]
4.1.15.5	Retesting	14 hrs	5 days	Mon 23-10-30	Mon 23-11-06	244	Vendor[37%]
4.1.15.6	Training	14 hrs	5 days	Mon 23-11-06	Fri 23-11-10	245	Vendor[37%]
4.1.15.7	UAT sign-off	1 hr	0.5 days	Fri 23-11-10	Mon 23-11-13	246	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.1.15.8	Go Live	14 hrs	5 days	Mon 23-11-13	Mon 23-11-20		
4.1.15.8.1	Go live plan	7 hrs	1 day	Mon 23-11-13	Tue 23-11-14	247	Vendor[93%]
4.1.15.8.2	Go-live plan approved	1 hr	1 day	Tue 23-11-14	Wed 23-11-15	249	Vendor[13%]
4.1.15.8.3	CAB Submission Preparation	3 hrs	1 day	Wed 23-11-15	Thu 23-11-16	250	Vendor[40%]
4.1.15.8.4	CAB Approval	2 hrs	1 day	Thu 23-11-16	Fri 23-11-17	251	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.1.15.8.5	Launch solution	1 hr	1 day	Fri 23-11-17	Mon 23-11-20	252	Vendor[13%]
4.1.16	COS Upgrades & Dashboard V4	569 hrs	92.27 days	Thu 24-07-18	Wed 24-11-20		
4.1.16.1	Design	150 hrs	20 days	Thu 24-07-18	Wed 24-08-14	253FS+180 days	Vendor
4.1.16.2	Development/Configure	347 hrs	46.27 days	Wed 24-08-14	Tue 24-10-15	255	Vendor
4.1.16.3	Testing	14 hrs	5 days	Tue 24-10-15	Tue 24-10-22	256	Vendor[37%]
4.1.16.4	Redevelopment for bug fixes	14 hrs	5 days	Tue 24-10-22	Tue 24-10-29	257	Vendor[37%]
4.1.16.5	Retesting	14 hrs	5 days	Tue 24-10-29	Mon 24-11-04	258	Vendor[37%]
4.1.16.6	Training	14 hrs	5 days	Mon 24-11-04	Tue 24-11-12	259	Vendor[37%]
4.1.16.7	UAT sign-off	2 hrs	1 day	Tue 24-11-12	Wed 24-11-13	260	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.1.16.8	Go Live	14 hrs	5 days	Wed 24-11-13	Wed 24-11-20		
4.1.16.8.1	Go live plan	7 hrs	1 day	Wed 24-11-13	Thu 24-11-14	261	Vendor[93%]
4.1.16.8.2	Go-live plan approved	1 hr	1 day	Thu 24-11-14	Fri 24-11-15	263	Vendor[13%]
4.1.16.8.3	CAB Submission Preparation	3 hrs	1 day	Fri 24-11-15	Mon 24-11-18	264	Vendor[40%]
4.1.16.8.4	CAB Approval	2 hrs	1 day	Mon 24-11-18	Tue 24-11-19	265	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.1.16.8.5	Launch solution	1 hr	1 day	Tue 24-11-19	Wed 24-11-20	266	Vendor[13%]
4.2	Not For Profit Organizations added to Business Directory	53 hrs	15 days	Mon 19-12-02	Fri 19-12-20		
4.2.1	Determine Requirements	4 hrs	2 days	Mon 19-12-02	Wed 19-12-04	56	Application Support CoA[27%]
4.2.2	Configure City View	20 hrs	5 days	Wed 19-12-04	Wed 19-12-11	269	Application Support CoA[27%]
4.2.3	Testing	5 hrs	2 days	Wed 19-12-11	Fri 19-12-13	270	Technology and Security SME CoA
4.2.4	Redevelopment for bug fixes	10 hrs	5 days	Fri 19-12-13	Thu 19-12-19	271	Application Support CoA[27%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.2.5	Retesting	5 hrs	1 day	Thu 19-12-19	Fri 19-12-20		272 Technology and Security SME CoA[67%]
4.2.6	Training	3 hrs	1 day	Fri 19-12-13	Mon 19-12-16		271 Application Support CoA
4.2.7	UAT sign-off	1 hr	1 day	Mon 19-12-16	Tue 19-12-17		274 Application Support CoA
4.2.8	Go Live	5 hrs	3.27 days	Tue 19-12-17	Fri 19-12-20		
4.2.8.1	Go live plan	1 hr	1 day	Tue 19-12-17	Wed 19-12-18		275 Application Support CoA[93%]
4.2.8.2	Go-live plan approved	1 hr	0.13 days	Wed 19-12-18	Wed 19-12-18		277 Technology and Security SME CoA
4.2.8.3	CAB Submission Preparation	1 hr	1 day	Wed 19-12-18	Thu 19-12-19		278 Application Support CoA[93%]
4.2.8.4	CAB Approval	1 hr	0.13 days	Thu 19-12-19	Thu 19-12-19		279 Technology and Security SME CoA
4.2.8.5	Launch solution	1 hr	1 day	Thu 19-12-19	Fri 19-12-20		280 Application Support CoA[93%]
4.3	Census API	99 hrs	36 days	Thu 21-03-11	Fri 21-04-30		
4.3.1	Design	10 hrs	2 days	Thu 21-03-11	Mon 21-03-15	196FS-60 days	Developer CoA[67%]
4.3.2	Development/Configure	50 hrs	20 days	Mon 21-03-15	Tue 21-04-13		283 Developer CoA[27%]
4.3.3	Testing	5 hrs	1 day	Tue 21-04-13	Wed 21-04-14		284 Application Support CoA[67%]
4.3.4	redevelopment for bug fixes	15 hrs	5 days	Wed 21-04-14	Tue 21-04-20		285 Developer CoA[40%]
4.3.5	Retesting	5 hrs	1 day	Tue 21-04-20	Wed 21-04-21		286 Application Support CoA[67%]
4.3.6	Training	5 hrs	1 day	Wed 21-04-21	Thu 21-04-22		287 Developer CoA[67%]
4.3.7	UAT sign-off	1 hr	1 day	Thu 21-04-22	Fri 21-04-23		288 Developer CoA[13%]
4.3.8	Go Live	8 hrs	5 days	Fri 21-04-23	Fri 21-04-30		
4.3.8.1	Go live plan	2 hrs	1 day	Fri 21-04-23	Mon 21-04-26		289 Developer CoA[27%]
4.3.8.2	Go-live plan approved	1 hr	1 day	Mon 21-04-26	Tue 21-04-27		291 Technology and Security SME CoA
4.3.8.3	CAB Submission Preparation	3 hrs	1 day	Tue 21-04-27	Wed 21-04-28		292 Developer CoA[40%]
4.3.8.4	CAB Approval	1 hr	1 day	Wed 21-04-28	Thu 21-04-29		293 Technology and Security SME CoA
4.3.8.5	Launch solution	1 hr	1 day	Thu 21-04-29	Fri 21-04-30		294 Developer CoA[13%]
4.4	Recreation Center Platform API	99 hrs	34 days	Mon 21-03-15	Fri 21-04-30		
4.4.1	Design	10 hrs	2 days	Mon 21-03-15	Wed 21-03-17		283 Application Support CoA[67%],Vendor
4.4.2	Development/Configure	50 hrs	18 days	Wed 21-03-17	Tue 21-04-13		297 Vendor[37%]
4.4.3	Testing	5 hrs	1 day	Tue 21-04-13	Wed 21-04-14		298 Application Support CoA[67%]
4.4.4	Redevelopment for bug fixes	15 hrs	5 days	Wed 21-04-14	Tue 21-04-20		299 Vendor[40%]
4.4.5	Retesting	5 hrs	1 day	Tue 21-04-20	Wed 21-04-21		300 Application Support CoA[67%]
4.4.6	Training	5 hrs	1 day	Wed 21-04-21	Thu 21-04-22		301 Vendor[67%]
4.4.7	UAT sign-off	1 hr	1 day	Thu 21-04-22	Fri 21-04-23		302 Vendor[13%]
4.4.8	Go Live	8 hrs	5 days	Fri 21-04-23	Fri 21-04-30		
4.4.8.1	Go live plan	2 hrs	1 day	Fri 21-04-23	Mon 21-04-26		303 Vendor[27%]
4.4.8.2	Go-live plan approved	1 hr	1 day	Mon 21-04-26	Tue 21-04-27		305 Vendor[13%],Technology and Security SME CoA
4.4.8.3	CAB Submission Preparation	3 hrs	1 day	Tue 21-04-27	Wed 21-04-28		306 Vendor[40%]
4.4.8.4	CAB Approval	1 hr	1 day	Wed 21-04-28	Thu 21-04-29		307 Technology and Security SME CoA[13%],Vendor[13%]
4.4.8.5	Launch solution	1 hr	1 day	Thu 21-04-29	Fri 21-04-30		308 Vendor[13%]
4.5	Wearables API	101 hrs	34 days	Mon 21-03-15	Fri 21-04-30		
4.5.1	Design	10 hrs	2 days	Mon 21-03-15	Wed 21-03-17		283 Vendor[67%]
4.5.2	Development/Configure	50 hrs	18 days	Wed 21-03-17	Tue 21-04-13		311 Vendor[37%]
4.5.3	Testing	5 hrs	1 day	Tue 21-04-13	Wed 21-04-14		312 Vendor[67%]
4.5.4	Redevelopment for bug fixes	15 hrs	5 days	Wed 21-04-14	Tue 21-04-20		313 Vendor[40%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.5.5	Retesting	5 hrs	1 day	Tue 21-04-20	Wed 21-04-21	314	Vendor[67%]
4.5.6	Training	5 hrs	1 day	Wed 21-04-21	Thu 21-04-22	315	Vendor[67%]
4.5.7	UAT sign-off	2 hrs	1 day	Thu 21-04-22	Fri 21-04-23	316	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.5.8	Go Live	9 hrs	5 days	Fri 21-04-23	Fri 21-04-30		
4.5.8.1	Go live plan	2 hrs	1 day	Fri 21-04-23	Mon 21-04-26	317	Vendor[27%]
4.5.8.2	Go-live plan approved	1 hr	1 day	Mon 21-04-26	Tue 21-04-27	319	Vendor[13%]
4.5.8.3	CAB Submission Preparation	3 hrs	1 day	Tue 21-04-27	Wed 21-04-28	320	Vendor[40%]
4.5.8.4	CAB Approval	2 hrs	1 day	Wed 21-04-28	Thu 21-04-29	321	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.5.8.5	Launch solution	1 hr	1 day	Thu 21-04-29	Fri 21-04-30	322	Vendor[13%]
4.6	GIS Data API	101 hrs	34 days	Fri 21-04-30	Wed 21-06-16		
4.6.1	Design	10 hrs	2 days	Fri 21-04-30	Tue 21-05-04	323	GIS Personnel CoA[67%]
4.6.2	Development/Configure	50 hrs	18 days	Tue 21-05-04	Fri 21-05-28	325	Vendor[37%]
4.6.3	Testing	5 hrs	1 day	Fri 21-05-28	Fri 21-05-28	326	GIS Personnel CoA[67%]
4.6.4	Redevelopment for bug fixes	15 hrs	5 days	Fri 21-05-28	Fri 21-06-04	327	Vendor[40%]
4.6.5	Retesting	5 hrs	1 day	Fri 21-06-04	Mon 21-06-07	328	Vendor[67%]
4.6.6	Training	5 hrs	1 day	Mon 21-06-07	Tue 21-06-08	329	Vendor[67%]
4.6.7	UAT sign-off	2 hrs	1 day	Tue 21-06-08	Wed 21-06-09	330	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.6.8	Go Live	9 hrs	5 days	Wed 21-06-09	Wed 21-06-16		
4.6.8.1	Go live plan	2 hrs	1 day	Wed 21-06-09	Thu 21-06-10	331	Vendor[27%]
4.6.8.2	Go-live plan approved	1 hr	1 day	Thu 21-06-10	Fri 21-06-11	333	Vendor[13%]
4.6.8.3	CAB Submission Preparation	3 hrs	1 day	Fri 21-06-11	Mon 21-06-14	334	Vendor[40%]
4.6.8.4	CAB Approval	2 hrs	1 day	Mon 21-06-14	Tue 21-06-15	335	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.6.8.5	Launch solution	1 hr	1 day	Tue 21-06-15	Wed 21-06-16	336	Vendor[13%]
4.7	Social Media API	101 hrs	34 days	Wed 21-06-16	Mon 21-08-02		
4.7.1	Design	10 hrs	2 days	Wed 21-06-16	Fri 21-06-18	337	Vendor[67%]
4.7.2	Development/Configure	50 hrs	18 days	Fri 21-06-18	Tue 21-07-13	339	Vendor[37%]
4.7.3	Testing	5 hrs	1 day	Tue 21-07-13	Wed 21-07-14	340	Vendor[67%]
4.7.4	Redevelopment for bug fixes	15 hrs	5 days	Wed 21-07-14	Wed 21-07-21	341	Vendor[40%]
4.7.5	Retesting	5 hrs	1 day	Wed 21-07-21	Thu 21-07-22	342	Vendor[67%]
4.7.6	Training	5 hrs	1 day	Thu 21-07-22	Fri 21-07-23	343	Vendor[67%]
4.7.7	UAT sign-off	2 hrs	1 day	Fri 21-07-23	Mon 21-07-26	344	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.7.8	Go Live	9 hrs	5 days	Mon 21-07-26	Mon 21-08-02		
4.7.8.1	Go live plan	2 hrs	1 day	Mon 21-07-26	Tue 21-07-27	345	Vendor[27%]
4.7.8.2	Go-live plan approved	1 hr	1 day	Tue 21-07-27	Wed 21-07-28	347	Vendor[13%]
4.7.8.3	CAB Submission Preparation	3 hrs	1 day	Wed 21-07-28	Thu 21-07-29	348	Vendor[40%]
4.7.8.4	CAB Approval	2 hrs	1 day	Thu 21-07-29	Fri 21-07-30	349	Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.7.8.5	Launch solution	1 hr	1 day	Fri 21-07-30	Mon 21-08-02		350 Vendor[13%]
4.8	Local, Provincial & Federal Open Data Platforms API	721 hrs	126 days	Mon 21-08-02	Thu 22-01-20		
4.8.1	Development/Configure	600 hrs	100 days	Mon 21-08-02	Tue 21-12-14		351 Vendor[80%]
4.8.2	Testing	35 hrs	5 days	Tue 21-12-14	Tue 21-12-21		353 Vendor[93%]
4.8.3	Redevelopment for bug fixes	20 hrs	5 days	Tue 21-12-21	Thu 21-12-30		354 Vendor[53%]
4.8.4	Retesting	20 hrs	5 days	Thu 21-12-30	Wed 22-01-05		355 Vendor[53%]
4.8.5	Training	35 hrs	5 days	Wed 22-01-05	Wed 22-01-12		356 Vendor[93%]
4.8.6	UAT sign-off	2 hrs	1 day	Wed 22-01-12	Thu 22-01-13		357 Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.8.7	Go Live	9 hrs	5 days	Thu 22-01-13	Thu 22-01-20		
4.8.7.1	Go live plan	2 hrs	1 day	Thu 22-01-13	Fri 22-01-14		358 Vendor[27%]
4.8.7.2	Go-live plan approved	1 hr	1 day	Fri 22-01-14	Mon 22-01-17		360 Vendor[13%]
4.8.7.3	CAB Submission Preparation	3 hrs	1 day	Mon 22-01-17	Tue 22-01-18		361 Vendor[40%]
4.8.7.4	CAB Approval	2 hrs	1 day	Tue 22-01-18	Wed 22-01-19		362 Technology and Security SME CoA[13%], Technology and Security SME AAHC[13%]
4.8.7.5	Launch solution	1 hr	1 day	Wed 22-01-19	Thu 22-01-20		363 Vendor[13%]
4.9	Service Inventory	8,320 hrs	790 days	Thu 20-04-16	Thu 23-03-23		
4.9.1	Phase 2 Engagement and Communications	220 hrs	39 days	Thu 20-04-16	Mon 20-06-08		
4.9.1.1	Communications and promotions	56 hrs	10 days	Thu 20-04-16	Wed 20-04-29		85 Communications and Engagement Consultant
4.9.1.2	Workshops for service providers	44 hrs	10 days	Wed 20-04-29	Wed 20-05-13		367 Communications and Engagement Consultant
4.9.1.3	Interviews with service providers	16 hrs	4 days	Wed 20-05-13	Tue 20-05-19		368 Communications and Engagement Consultant
4.9.1.4	Pop-ups	42 hrs	6 days	Tue 20-05-19	Wed 20-05-27		369 Communications and Engagement Consultant
4.9.1.5	Online Tool	34 hrs	5 days	Wed 20-05-27	Wed 20-06-03		370 Communications and Engagement Consultant
4.9.1.6	Kiosks	8 hrs	1 day	Wed 20-06-03	Thu 20-06-04		371 Communications and Engagement Consultant
4.9.1.7	Phase 2 What we Heard report	20 hrs	3 days	Thu 20-06-04	Mon 20-06-08		372 Communications and Engagement Consultant
4.9.2	Service Inventory planning and consultation	200 hrs	20 days	Mon 20-06-08	Mon 20-07-06		373 Business Analyst[57%], Data Analyst[57%], Developer 1[57%], Developer 2[57%]
4.9.3	Service Inventory V1 & API	2,050 hrs	200 days	Wed 20-04-29	Thu 21-01-28		
4.9.3.1	Planning & Consultation, gathering requirements and data	450 hrs	40 days	Wed 20-04-29	Tue 20-06-23		367 Business Analyst[67%], Data Analyst[67%], Developer 1[67%], Developer 2[67%]
4.9.3.2	Build service inventory V1	900 hrs	60 days	Tue 20-06-23	Fri 20-09-11		376 Data Analyst[67%], Developer 1[67%], Developer 2[67%]
4.9.3.3	Build API & Connect to COS	700 hrs	100 days	Fri 20-09-11	Thu 21-01-28		377 Vendor
4.9.4	Service Inventory V2 & API	2,050 hrs	200 days	Thu 21-01-28	Wed 21-10-27		
4.9.4.1	Planning & Consultation, gathering requirements and data	450 hrs	40 days	Thu 21-01-28	Tue 21-03-23		378 Business Analyst[67%], Data Analyst[67%], Developer 1[67%], Developer 2[67%]
4.9.4.2	Build service inventory V2	900 hrs	60 days	Tue 21-03-23	Tue 21-06-15		380 Data Analyst[67%], Developer 1[67%], Developer 2[67%]
4.9.4.3	Build API & Connect to COS	700 hrs	100 days	Tue 21-06-15	Wed 21-10-27		381 Vendor
4.9.5	Service Inventory V3 & API	1,750 hrs	180 days	Wed 21-10-27	Mon 22-06-27		
4.9.5.1	Planning & Consultation, gathering requirements and data	450 hrs	40 days	Wed 21-10-27	Tue 21-12-21		382 Business Analyst[67%], Data Analyst[67%], Developer 1[67%], Developer 2[67%]
4.9.5.2	Build service inventory V3	600 hrs	40 days	Tue 21-12-21	Mon 22-02-14		384 Data Analyst[67%], Developer 1[67%], Developer 2[67%]
4.9.5.3	Build API & Connect to COS	700 hrs	100 days	Mon 22-02-14	Mon 22-06-27		385 Vendor

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.9.6	Service Inventory V4 & API	2,050 hrs	200 days	Mon 22-06-27	Thu 23-03-23		
4.9.6.1	Planning & Consultation, gathering requirements and data	450 hrs	40 days	Mon 22-06-27	Fri 22-08-19	386	Business Analyst[67%],Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.9.6.2	Build service inventory V4	900 hrs	60 days	Fri 22-08-19	Tue 22-11-08	388	Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.9.6.3	Build API & Connect to COS	700 hrs	100 days	Tue 22-11-08	Thu 23-03-23	389	Vendor
4.1	eMental Health COS APIs & Dashboard	375 hrs	50 days	Thu 21-01-28	Thu 21-04-08		
4.10.1	Gather requirements & data	187.5 hrs	25 days	Thu 21-01-28	Wed 21-03-03	378	Vendor
4.10.2	Build COS APIs & dashboard	187.5 hrs	25 days	Wed 21-03-03	Thu 21-04-08	392	Vendor
4.11	Well-Being Tool COS APIs & Dashboard	375 hrs	50 days	Tue 21-06-29	Fri 21-09-03		
4.11.1	Gather requirements & data	187.5 hrs	25 days	Tue 21-06-29	Tue 21-08-03	204	Vendor
4.11.2	Build COS APIs & dashboard	187.5 hrs	25 days	Tue 21-08-03	Fri 21-09-03	395	Vendor
4.12	People Like Me COS APIs & Dashboard	375 hrs	50 days	Fri 21-09-03	Fri 21-11-12		
4.12.1	Gather requirements & data	187.5 hrs	25 days	Fri 21-09-03	Fri 21-10-08	396	Vendor
4.12.2	Build COS APIs & dashboard	187.5 hrs	25 days	Fri 21-10-08	Fri 21-11-12	398	Vendor
4.13	Engagement for Community Involvement COS APIs & Dashboard	375 hrs	50 days	Wed 22-11-23	Mon 23-01-30		
4.13.1	Gather requirements & data	187.5 hrs	25 days	Wed 22-11-23	Tue 22-12-27	239	Vendor
4.13.2	Build COS APIs & dashboard	187.5 hrs	25 days	Tue 22-12-27	Mon 23-01-30	401	Vendor
4.14	Clinical Systems COS APIs & Dashboard	375 hrs	50 days	Mon 23-01-30	Thu 23-04-06		
4.14.1	Gather requirements & data	187.5 hrs	25 days	Mon 23-01-30	Fri 23-03-03	402	Vendor
4.14.2	Build COS APIs & dashboard	187.5 hrs	25 days	Fri 23-03-03	Thu 23-04-06	404	Vendor
4.15	Accessibility and Usability	9,258 hrs	1058 days	Mon 20-12-14	Thu 24-11-07		
4.15.1	Phase 3 Communications and Engagement	210 hrs	36 days	Mon 20-12-14	Wed 21-02-03		
4.15.1.1	Communications and promotions	56 hrs	10 days	Mon 20-12-14	Tue 20-12-29	195	Communications and Engagement Consultant
4.15.1.2	Workshops for service providers	50 hrs	10 days	Tue 20-12-29	Wed 21-01-13	408	Communications and Engagement Consultant
4.15.1.3	Pop-ups	42 hrs	6 days	Wed 21-01-13	Wed 21-01-20	409	Communications and Engagement Consultant
4.15.1.4	Online Tool	34 hrs	5 days	Wed 21-01-20	Wed 21-01-27	410	Communications and Engagement Consultant
4.15.1.5	Kiosks	8 hrs	2 days	Wed 21-01-27	Fri 21-01-29	411	Communications and Engagement Consultant
4.15.1.6	Phase 3 What we Heard report	20 hrs	3 days	Fri 21-01-29	Wed 21-02-03	412	Communications and Engagement Consultant
4.15.2	Web Interface	956 hrs	813 days	Mon 20-12-14	Wed 23-12-13		
4.15.2.1	MyAirdrie Interface	221 hrs	56 days	Mon 20-12-14	Tue 21-03-02		
4.15.2.1.1	Design	75 hrs	15 days	Mon 20-12-14	Wed 21-01-06	195	Developer CoA[67%]
4.15.2.1.2	Update PIA	2 hrs	1 day	Wed 21-01-06	Thu 21-01-07	416	Risk Privacy and Governance CoA,Project Manager
4.15.2.1.3	Development/Configure	75 hrs	15 days	Wed 21-01-06	Tue 21-01-26	416	Developer CoA[67%]
4.15.2.1.4	Testing	20 hrs	5 days	Tue 21-01-26	Tue 21-02-02	418	Application Support CoA[53%]
4.15.2.1.5	Redevelopment for bug fixes	20 hrs	5 days	Tue 21-02-02	Mon 21-02-08	419	Developer CoA[53%]
4.15.2.1.6	Retesting	10 hrs	5 days	Mon 21-02-08	Tue 21-02-16	420	Application Support CoA[27%]
4.15.2.1.7	Training	10 hrs	5 days	Tue 21-02-16	Tue 21-02-23	421	Developer CoA[27%]
4.15.2.1.8	UAT sign-off	1 hr	1 day	Tue 21-02-23	Wed 21-02-24	422	Developer CoA[13%]
4.15.2.1.9	Go Live	8 hrs	5 days	Wed 21-02-24	Tue 21-03-02		
4.15.2.1.9.1	Go live plan	2 hrs	1 day	Wed 21-02-24	Thu 21-02-25	423	Developer CoA
4.15.2.1.9.2	Go-live plan approved	1 hr	1 day	Thu 21-02-25	Fri 21-02-26	425	Technology and Security SME CoA

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.15.2.1.9.3	CAB Submission Preparation	3 hrs	1 day	Fri 21-02-26	Mon 21-03-01		426 Developer CoA
4.15.2.1.9.4	CAB Approval	1 hr	1 day	Mon 21-03-01	Tue 21-03-02		427 Technology and Security SME CoA
4.15.2.1.9.5	Launch solution	1 hr	1 day	Tue 21-03-02	Tue 21-03-02		428 Developer CoA
4.15.2.2	MyAirdrie User Authentication	219 hrs	56 days	Tue 21-03-02	Tue 21-05-18		
4.15.2.2.1	Design	75 hrs	15 days	Tue 21-03-02	Tue 21-03-23		429 Developer CoA[67%]
4.15.2.2.2	Development/Configure	75 hrs	15 days	Tue 21-03-23	Wed 21-04-14		431 Developer CoA[67%]
4.15.2.2.3	Testing	20 hrs	5 days	Wed 21-04-14	Tue 21-04-20		432 Application Support CoA[53%]
4.15.2.2.4	Redevelopment for bug fixes	20 hrs	5 days	Tue 21-04-20	Tue 21-04-27		433 Developer CoA[53%]
4.15.2.2.5	Retesting	10 hrs	5 days	Tue 21-04-27	Tue 21-05-04		434 Application Support CoA[27%]
4.15.2.2.6	Training	10 hrs	5 days	Tue 21-05-04	Mon 21-05-10		435 Developer CoA[27%]
4.15.2.2.7	UAT sign-off	1 hr	1 day	Mon 21-05-10	Tue 21-05-11		436 Developer CoA[13%]
4.15.2.2.8	Go Live	8 hrs	5 days	Tue 21-05-11	Tue 21-05-18		
4.15.2.2.8.1	Go live plan	2 hrs	1 day	Tue 21-05-11	Wed 21-05-12		437 Developer CoA
4.15.2.2.8.2	Go-live plan approved	1 hr	1 day	Wed 21-05-12	Thu 21-05-13		439 Technology and Security SME CoA
4.15.2.2.8.3	CAB Submission Preparation	3 hrs	1 day	Thu 21-05-13	Fri 21-05-14		440 Developer CoA
4.15.2.2.8.4	CAB Approval	1 hr	1 day	Fri 21-05-14	Mon 21-05-17		441 Technology and Security SME CoA
4.15.2.2.8.5	Launch solution	1 hr	1 day	Mon 21-05-17	Tue 21-05-18		442 Developer CoA
4.15.2.3	MyAirdrie Portal Integration	219 hrs	56 days	Tue 21-05-18	Mon 21-08-02		
4.15.2.3.1	Design	75 hrs	15 days	Tue 21-05-18	Tue 21-06-08		443 Developer CoA[67%]
4.15.2.3.2	Development/Configure	75 hrs	15 days	Tue 21-06-08	Mon 21-06-28		445 Developer CoA[67%]
4.15.2.3.3	Testing	20 hrs	5 days	Mon 21-06-28	Tue 21-07-06		446 Application Support CoA[53%]
4.15.2.3.4	Redevelopment for bug fixes	20 hrs	5 days	Tue 21-07-06	Mon 21-07-12		447 Developer CoA[53%]
4.15.2.3.5	Retesting	10 hrs	5 days	Mon 21-07-12	Mon 21-07-19		448 Application Support CoA[27%]
4.15.2.3.6	Training	10 hrs	5 days	Mon 21-07-19	Mon 21-07-26		449 Developer CoA[27%]
4.15.2.3.7	UAT sign-off	1 hr	1 day	Mon 21-07-26	Tue 21-07-27		450 Developer CoA[13%]
4.15.2.3.8	Go Live	8 hrs	5 days	Tue 21-07-27	Mon 21-08-02		
4.15.2.3.8.1	Go live plan	2 hrs	1 day	Tue 21-07-27	Wed 21-07-28		451 Developer CoA
4.15.2.3.8.2	Go-live plan approved	1 hr	1 day	Wed 21-07-28	Thu 21-07-29		453 Technology and Security SME CoA
4.15.2.3.8.3	CAB Submission Preparation	3 hrs	1 day	Thu 21-07-29	Fri 21-07-30		454 Developer CoA
4.15.2.3.8.4	CAB Approval	1 hr	1 day	Fri 21-07-30	Mon 21-08-02		455 Technology and Security SME CoA
4.15.2.3.8.5	Launch solution	1 hr	1 day	Mon 21-08-02	Mon 21-08-02		456 Developer CoA
4.15.2.4	Portal Updates	99 hrs	35 days	Mon 22-04-04	Thu 22-05-19		
4.15.2.4.1	Design	20 hrs	5 days	Mon 22-04-04	Mon 22-04-11	457FS+180 days	Developer CoA[53%]
4.15.2.4.2	Development/Configure	40 hrs	10 days	Mon 22-04-11	Fri 22-04-22		459 Developer CoA[53%]
4.15.2.4.3	Testing	10 hrs	5 days	Fri 22-04-22	Fri 22-04-29		460 Application Support CoA[27%]
4.15.2.4.4	Redevelopment for bug fixes	10 hrs	5 days	Fri 22-04-29	Fri 22-05-06		461 Developer CoA[27%]
4.15.2.4.5	Retesting	5 hrs	2 days	Fri 22-05-06	Tue 22-05-10		462 Application Support CoA[33%]
4.15.2.4.6	Training	5 hrs	2 days	Tue 22-05-10	Wed 22-05-11		463 Developer CoA[33%]
4.15.2.4.7	UAT sign-off	1 hr	1 day	Wed 22-05-11	Thu 22-05-12		464 Developer CoA[13%]
4.15.2.4.8	Go Live	8 hrs	5 days	Thu 22-05-12	Thu 22-05-19		
4.15.2.4.8.1	Go live plan	2 hrs	1 day	Thu 22-05-12	Fri 22-05-13		465 Developer CoA

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.15.2.4.8.2	Go-live plan approved	1 hr	1 day	Fri 22-05-13	Mon 22-05-16		467 Technology and Security SME CoA
4.15.2.4.8.3	CAB Submission Preparation	3 hrs	1 day	Mon 22-05-16	Tue 22-05-17		468 Developer CoA
4.15.2.4.8.4	CAB Approval	1 hr	1 day	Tue 22-05-17	Wed 22-05-18		469 Technology and Security SME CoA
4.15.2.4.8.5	Launch solution	1 hr	1 day	Wed 22-05-18	Thu 22-05-19		470 Developer CoA
4.15.2.5	Portal Updates	99 hrs	35 days	Tue 23-01-17	Mon 23-03-06		
4.15.2.5.1	Design	20 hrs	5 days	Tue 23-01-17	Mon 23-01-23	471FS+180 days	Developer CoA[53%]
4.15.2.5.2	Development/Configure	40 hrs	10 days	Mon 23-01-23	Mon 23-02-06		473 Developer CoA[53%]
4.15.2.5.3	Testing	10 hrs	5 days	Mon 23-02-06	Mon 23-02-13		474 Application Support CoA[27%]
4.15.2.5.4	Redevelopment for bug fixes	10 hrs	5 days	Mon 23-02-13	Fri 23-02-17		475 Developer CoA[27%]
4.15.2.5.5	Retesting	5 hrs	2 days	Fri 23-02-17	Wed 23-02-22		476 Application Support CoA[33%]
4.15.2.5.6	Training	5 hrs	2 days	Wed 23-02-22	Fri 23-02-24		477 Developer CoA[33%]
4.15.2.5.7	UAT sign-off	1 hr	1 day	Fri 23-02-24	Mon 23-02-27		478 Developer CoA[13%]
4.15.2.5.8	Go Live	8 hrs	5 days	Mon 23-02-27	Mon 23-03-06		
4.15.2.5.8.1	Go live plan	2 hrs	1 day	Mon 23-02-27	Tue 23-02-28		479 Developer CoA
4.15.2.5.8.2	Go-live plan approved	1 hr	1 day	Tue 23-02-28	Wed 23-03-01		481 Technology and Security SME CoA
4.15.2.5.8.3	CAB Submission Preparation	3 hrs	1 day	Wed 23-03-01	Thu 23-03-02		482 Developer CoA
4.15.2.5.8.4	CAB Approval	1 hr	1 day	Thu 23-03-02	Fri 23-03-03		483 Technology and Security SME CoA
4.15.2.5.8.5	Launch solution	1 hr	1 day	Fri 23-03-03	Mon 23-03-06		484 Developer CoA
4.15.2.6	Portal Updates	99 hrs	35 days	Fri 23-10-27	Wed 23-12-13		
4.15.2.6.1	Design	20 hrs	5 days	Fri 23-10-27	Fri 23-11-03	485FS+180 days	Developer CoA[53%]
4.15.2.6.2	Development/Configure	40 hrs	10 days	Fri 23-11-03	Thu 23-11-16		487 Developer CoA[53%]
4.15.2.6.3	Testing	10 hrs	5 days	Thu 23-11-16	Thu 23-11-23		488 Application Support CoA[27%]
4.15.2.6.4	Redevelopment for bug fixes	10 hrs	5 days	Thu 23-11-23	Thu 23-11-30		489 Developer CoA[27%]
4.15.2.6.5	Retesting	5 hrs	2 days	Thu 23-11-30	Mon 23-12-04		490 Application Support CoA[33%]
4.15.2.6.6	Training	5 hrs	2 days	Mon 23-12-04	Wed 23-12-06		491 Developer CoA[33%]
4.15.2.6.7	UAT sign-off	1 hr	1 day	Wed 23-12-06	Wed 23-12-06		492 Developer CoA[13%]
4.15.2.6.8	Go Live	8 hrs	5 days	Wed 23-12-06	Wed 23-12-13		
4.15.2.6.8.1	Go live plan	2 hrs	1 day	Wed 23-12-06	Thu 23-12-07		493 Developer CoA
4.15.2.6.8.2	Go-live plan approved	1 hr	1 day	Thu 23-12-07	Fri 23-12-08		495 Technology and Security SME CoA
4.15.2.6.8.3	CAB Submission Preparation	3 hrs	1 day	Fri 23-12-08	Mon 23-12-11		496 Developer CoA
4.15.2.6.8.4	CAB Approval	1 hr	1 day	Mon 23-12-11	Tue 23-12-12		497 Technology and Security SME CoA
4.15.2.6.8.5	Launch solution	1 hr	1 day	Tue 23-12-12	Wed 23-12-13		498 Developer CoA
4.15.3	Mobile Apps (iOS/Android) Interface	8,092 hrs	1022 days	Wed 21-02-03	Thu 24-11-07		
4.15.3.1	Mobile Apps Development V1	2,998 hrs	188 days	Wed 21-02-03	Mon 21-10-18		
4.15.3.1.1	Design	1,300 hrs	60 days	Wed 21-02-03	Tue 21-04-27		407 Business Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.1.2	Development/Configure	1,500 hrs	100 days	Tue 21-04-27	Thu 21-09-09		502 Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.1.3	Testing	60 hrs	6 days	Thu 21-09-09	Thu 21-09-16		503 Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.1.4	Redevelopment for bug fixes	30 hrs	5 days	Thu 21-09-16	Thu 21-09-23		504 Developer 2[80%]
4.15.3.1.5	Retesting	30 hrs	5 days	Thu 21-09-23	Thu 21-09-30		505 Developer 2[80%]
4.15.3.1.6	Training	60 hrs	6 days	Thu 21-09-30	Thu 21-10-07		506 Data Analyst[67%],Developer 1[67%],Developer 2[67%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.15.3.1.7	UAT sign-off	2 hrs	1 day	Thu 21-10-07	Fri 21-10-08	507	Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.15.3.1.8	Go Live	16 hrs	5 days	Fri 21-10-08	Mon 21-10-18		
4.15.3.1.8.1	Go live plan	4 hrs	1 day	Fri 21-10-08	Tue 21-10-12	508	Developer 1[27%],Developer 2[27%]
4.15.3.1.8.2	Go-live plan approved	2 hrs	1 day	Tue 21-10-12	Wed 21-10-13	510	Developer 1[27%],Developer 2[27%]
4.15.3.1.8.3	CAB Submission Preparation	6 hrs	1 day	Wed 21-10-13	Thu 21-10-14	511	Developer 1[27%],Developer 2[27%]
4.15.3.1.8.4	CAB Approval	2 hrs	1 day	Thu 21-10-14	Fri 21-10-15	512	Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.15.3.1.8.5	Launch solution	2 hrs	1 day	Fri 21-10-15	Mon 21-10-18	513	Developer 1[13%],Developer 2[13%]
4.15.3.2	Mobile Apps Development V2	1,698 hrs	128 days	Mon 22-05-09	Wed 22-10-26		
4.15.3.2.1	Design	600 hrs	40 days	Mon 22-05-09	Wed 22-06-29	514FS+150 days	Business Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.2.2	Development/Configure	900 hrs	60 days	Wed 22-06-29	Mon 22-09-19	516	Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.2.3	Testing	60 hrs	6 days	Mon 22-09-19	Tue 22-09-27	517	Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.2.4	Redevelopment for bug fixes	30 hrs	5 days	Tue 22-09-27	Tue 22-10-04	518	Developer 2[80%]
4.15.3.2.5	Retesting	30 hrs	5 days	Tue 22-10-04	Mon 22-10-10	519	Developer 2[80%]
4.15.3.2.6	Training	60 hrs	6 days	Mon 22-10-10	Tue 22-10-18	520	Data Analyst[44%],Developer 1[44%],Developer 2[44%]
4.15.3.2.7	UAT sign-off	2 hrs	1 day	Tue 22-10-18	Wed 22-10-19	521	Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.15.3.2.8	Go Live	16 hrs	5 days	Wed 22-10-19	Wed 22-10-26		
4.15.3.2.8.1	Go live plan	4 hrs	1 day	Wed 22-10-19	Thu 22-10-20	522	Developer 1[27%],Developer 2[27%]
4.15.3.2.8.2	Go-live plan approved	2 hrs	1 day	Thu 22-10-20	Fri 22-10-21	524	Developer 1[27%],Developer 2[27%]
4.15.3.2.8.3	CAB Submission Preparation	6 hrs	1 day	Fri 22-10-21	Mon 22-10-24	525	Developer 1[27%],Developer 2[27%]
4.15.3.2.8.4	CAB Approval	2 hrs	1 day	Mon 22-10-24	Tue 22-10-25	526	Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.15.3.2.8.5	Launch solution	2 hrs	1 day	Tue 22-10-25	Wed 22-10-26	527	Developer 1[13%],Developer 2[13%]
4.15.3.3	Mobile Apps Development V3	1,698 hrs	128 days	Mon 23-05-15	Tue 23-10-31		
4.15.3.3.1	Design	600 hrs	40 days	Mon 23-05-15	Thu 23-07-06	528FS+150 days	Business Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.3.2	Development/Configure	900 hrs	60 days	Thu 23-07-06	Mon 23-09-25	530	Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.3.3	Testing	60 hrs	6 days	Mon 23-09-25	Tue 23-10-03	531	Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.3.4	Redevelopment for bug fixes	30 hrs	5 days	Tue 23-10-03	Mon 23-10-09	532	Developer 2[80%]
4.15.3.3.5	Retesting	30 hrs	5 days	Mon 23-10-09	Mon 23-10-16	533	Developer 2[80%]
4.15.3.3.6	Training	60 hrs	6 days	Mon 23-10-16	Tue 23-10-24	534	Data Analyst[44%],Developer 1[44%],Developer 2[44%]
4.15.3.3.7	UAT sign-off	2 hrs	1 day	Tue 23-10-24	Wed 23-10-25	535	Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.15.3.3.8	Go Live	16 hrs	5 days	Wed 23-10-25	Tue 23-10-31		
4.15.3.3.8.1	Go live plan	4 hrs	1 day	Wed 23-10-25	Wed 23-10-25	536	Developer 1[27%],Developer 2[27%]
4.15.3.3.8.2	Go-live plan approved	2 hrs	1 day	Wed 23-10-25	Thu 23-10-26	538	Developer 1[27%],Developer 2[27%]
4.15.3.3.8.3	CAB Submission Preparation	6 hrs	1 day	Thu 23-10-26	Fri 23-10-27	539	Developer 1[27%],Developer 2[27%]
4.15.3.3.8.4	CAB Approval	2 hrs	1 day	Fri 23-10-27	Mon 23-10-30	540	Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
4.15.3.3.8.5	Launch solution	2 hrs	1 day	Mon 23-10-30	Tue 23-10-31		541 Developer 1[13%],Developer 2[13%]
4.15.3.4	Mobile Apps Development V4	1,698 hrs	128 days	Tue 24-05-21	Thu 24-11-07		
4.15.3.4.1	Design	600 hrs	40 days	Tue 24-05-21	Fri 24-07-12	542FS+150 days	Business Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.4.2	Development/Configure	900 hrs	60 days	Fri 24-07-12	Wed 24-10-02		544 Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.4.3	Testing	60 hrs	6 days	Wed 24-10-02	Wed 24-10-09		545 Data Analyst[67%],Developer 1[67%],Developer 2[67%]
4.15.3.4.4	Redevelopment for bug fixes	30 hrs	5 days	Wed 24-10-09	Wed 24-10-16		546 Developer 2[80%]
4.15.3.4.5	Retesting	30 hrs	5 days	Wed 24-10-16	Wed 24-10-23		547 Developer 2[80%]
4.15.3.4.6	Training	60 hrs	6 days	Wed 24-10-23	Wed 24-10-30		548 Data Analyst[44%],Developer 1[44%],Developer 2[44%]
4.15.3.4.7	UAT sign-off	2 hrs	1 day	Wed 24-10-30	Thu 24-10-31		549 Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.15.3.4.8	Go Live	16 hrs	5 days	Thu 24-10-31	Thu 24-11-07		
4.15.3.4.8.1	Go live plan	4 hrs	1 day	Thu 24-10-31	Fri 24-11-01		550 Developer 1[27%],Developer 2[27%]
4.15.3.4.8.2	Go-live plan approved	2 hrs	1 day	Fri 24-11-01	Mon 24-11-04		552 Developer 1[27%],Developer 2[27%]
4.15.3.4.8.3	CAB Submission Preparation	6 hrs	1 day	Mon 24-11-04	Tue 24-11-05		553 Developer 1[27%],Developer 2[27%]
4.15.3.4.8.4	CAB Approval	2 hrs	1 day	Tue 24-11-05	Wed 24-11-06		554 Technology and Security SME CoA[13%],Technology and Security SME AAHC[13%]
4.15.3.4.8.5	Launch solution	2 hrs	1 day	Wed 24-11-06	Thu 24-11-07		555 Developer 1[13%],Developer 2[13%]
5	Phase 4 Communications and Engagement	124 hrs	38 days	Fri 24-07-12	Tue 24-09-03		
5.1	Phase 4 Evaluation & Ongoing sustainment	124 hrs	38 days	Fri 24-07-12	Tue 24-09-03		
5.1.1	Communications and promotions	56 hrs	10 days	Fri 24-07-12	Fri 24-07-26		544 Communications and Engagement Consultant[40%]
5.1.2	Interviews with service providers	16 hrs	5 days	Fri 24-07-26	Thu 24-08-01		559 Communications and Engagement Consultant[40%]
5.1.3	Streeter surveys	10 hrs	10 days	Thu 24-08-01	Thu 24-08-15		560 Communications and Engagement Consultant[40%]
5.1.4	Online tool	34 hrs	10 days	Thu 24-08-15	Wed 24-08-28		561 Communications and Engagement Consultant[40%]
5.1.5	Kiosks	8 hrs	3 days	Wed 24-08-28	Tue 24-09-03		562 Communications and Engagement Consultant[40%]
6	Closeout	89 hrs	8.27 days	Thu 24-11-07	Wed 24-11-20		
6.1	Update implemented state documentation	35 hrs	5 days	Thu 24-11-07	Fri 24-11-15		556 Business Analyst
6.2	Complete Retrospective/Lessons Learned	36 hrs	1 day	Fri 24-11-15	Fri 24-11-15		565 Business Analyst[53%],Corporate Information Governance Leads CoA[53%],Data Analyst[53%],Developer 1[53%],Developer 2[53%],Technology and Security SME CoA[53%],Technology and Security SME AAHC[53%],Procurement CoA[53%],Project Manager[53%]
6.3	Transition to support	4 hrs	1 day	Fri 24-11-15	Mon 24-11-18		566 Data Analyst,Developer 1,Developer 2,Project Manager
6.4	Write Project Steering Committee closeout report & presentation	12 hrs	1 day	Mon 24-11-18	Tue 24-11-19		567 Data Analyst[40%],Developer 1[40%],Developer 2[40%],Project Manager[40%]
6.5	Present Closeout Report	2 hrs	0.27 days	Tue 24-11-19	Wed 24-11-20		568 Program Manager
7	Project Management	1,850 hrs	1396.2 days	Wed 19-09-04	Fri 24-11-01		
7.1	Sponsor meetings	124 hrs	1372.73 days	Tue 19-09-10	Tue 24-10-08		
7.1.1	Sponsor meetings 1	2 hrs	1 day	Tue 19-09-10	Tue 19-09-10		Project Manager[13%],Program Manager
7.1.2	Sponsor meetings 2	2 hrs	1 day	Tue 19-10-08	Tue 19-10-08		Project Manager[13%],Program Manager[13%]
7.1.3	Sponsor meetings 3	2 hrs	1 day	Tue 19-11-12	Tue 19-11-12		Project Manager[13%],Program Manager[13%]
7.1.4	Sponsor meetings 4	2 hrs	1 day	Tue 19-12-10	Tue 19-12-10		Project Manager[13%],Program Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.1.5	Sponsor meetings 5	2 hrs	1 day	Tue 20-01-14	Tue 20-01-14		Project Manager[13%],Program Manager[13%]
7.1.6	Sponsor meetings 6	2 hrs	1 day	Tue 20-02-11	Tue 20-02-11		Project Manager[13%],Program Manager[13%]
7.1.7	Sponsor meetings 7	2 hrs	1 day	Tue 20-03-10	Tue 20-03-10		Project Manager[13%],Program Manager[13%]
7.1.8	Sponsor meetings 8	2 hrs	1 day	Tue 20-04-14	Tue 20-04-14		Project Manager[13%],Program Manager[13%]
7.1.9	Sponsor meetings 9	2 hrs	1 day	Tue 20-05-12	Tue 20-05-12		Project Manager[13%],Program Manager[13%]
7.1.10	Sponsor meetings 10	2 hrs	1 day	Tue 20-06-09	Tue 20-06-09		Project Manager[13%],Program Manager[13%]
7.1.11	Sponsor meetings 11	2 hrs	1 day	Tue 20-07-14	Tue 20-07-14		Project Manager[13%],Program Manager[13%]
7.1.12	Sponsor meetings 12	2 hrs	1 day	Tue 20-08-11	Tue 20-08-11		Project Manager[13%],Program Manager[13%]
7.1.13	Sponsor meetings 13	2 hrs	1 day	Tue 20-09-08	Tue 20-09-08		Project Manager[13%],Program Manager[13%]
7.1.14	Sponsor meetings 14	2 hrs	1 day	Tue 20-10-13	Tue 20-10-13		Project Manager[13%],Program Manager[13%]
7.1.15	Sponsor meetings 15	2 hrs	1 day	Tue 20-11-10	Tue 20-11-10		Project Manager[13%],Program Manager[13%]
7.1.16	Sponsor meetings 16	2 hrs	1 day	Tue 20-12-08	Tue 20-12-08		Project Manager[13%],Program Manager[13%]
7.1.17	Sponsor meetings 17	2 hrs	1 day	Tue 21-01-12	Tue 21-01-12		Project Manager[13%],Program Manager[13%]
7.1.18	Sponsor meetings 18	2 hrs	1 day	Tue 21-02-09	Tue 21-02-09		Project Manager[13%],Program Manager[13%]
7.1.19	Sponsor meetings 19	2 hrs	1 day	Tue 21-03-09	Tue 21-03-09		Project Manager[13%],Program Manager[13%]
7.1.20	Sponsor meetings 20	2 hrs	1 day	Tue 21-04-13	Tue 21-04-13		Project Manager[13%],Program Manager[13%]
7.1.21	Sponsor meetings 21	2 hrs	1 day	Tue 21-05-11	Tue 21-05-11		Project Manager[13%],Program Manager[13%]
7.1.22	Sponsor meetings 22	2 hrs	1 day	Tue 21-06-08	Tue 21-06-08		Project Manager[13%],Program Manager[13%]
7.1.23	Sponsor meetings 23	2 hrs	1 day	Tue 21-07-13	Tue 21-07-13		Project Manager[13%],Program Manager[13%]
7.1.24	Sponsor meetings 24	2 hrs	1 day	Tue 21-08-10	Tue 21-08-10		Project Manager[13%],Program Manager[13%]
7.1.25	Sponsor meetings 25	2 hrs	1 day	Tue 21-09-14	Tue 21-09-14		Project Manager[13%],Program Manager[13%]
7.1.26	Sponsor meetings 26	2 hrs	1 day	Tue 21-10-12	Tue 21-10-12		Project Manager[13%],Program Manager[13%]
7.1.27	Sponsor meetings 27	2 hrs	1 day	Tue 21-11-09	Tue 21-11-09		Project Manager[13%],Program Manager[13%]
7.1.28	Sponsor meetings 28	2 hrs	1 day	Tue 21-12-14	Tue 21-12-14		Project Manager[13%],Program Manager[13%]
7.1.29	Sponsor meetings 29	2 hrs	1 day	Tue 22-01-11	Tue 22-01-11		Project Manager[13%],Program Manager[13%]
7.1.30	Sponsor meetings 30	2 hrs	1 day	Tue 22-02-08	Tue 22-02-08		Project Manager[13%],Program Manager[13%]
7.1.31	Sponsor meetings 31	2 hrs	1 day	Tue 22-03-08	Tue 22-03-08		Project Manager[13%],Program Manager[13%]
7.1.32	Sponsor meetings 32	2 hrs	1 day	Tue 22-04-12	Tue 22-04-12		Project Manager[13%],Program Manager[13%]
7.1.33	Sponsor meetings 33	2 hrs	1 day	Tue 22-05-10	Tue 22-05-10		Project Manager[13%],Program Manager[13%]
7.1.34	Sponsor meetings 34	2 hrs	1 day	Tue 22-06-14	Tue 22-06-14		Project Manager[13%],Program Manager[13%]
7.1.35	Sponsor meetings 35	2 hrs	1 day	Tue 22-07-12	Tue 22-07-12		Project Manager[13%],Program Manager[13%]
7.1.36	Sponsor meetings 36	2 hrs	1 day	Tue 22-08-09	Tue 22-08-09		Project Manager[13%],Program Manager[13%]
7.1.37	Sponsor meetings 37	2 hrs	1 day	Tue 22-09-13	Tue 22-09-13		Project Manager[13%],Program Manager[13%]
7.1.38	Sponsor meetings 38	2 hrs	1 day	Tue 22-10-11	Tue 22-10-11		Project Manager[13%],Program Manager[13%]
7.1.39	Sponsor meetings 39	2 hrs	1 day	Tue 22-11-08	Tue 22-11-08		Project Manager[13%],Program Manager[13%]
7.1.40	Sponsor meetings 40	2 hrs	1 day	Tue 22-12-13	Tue 22-12-13		Project Manager[13%],Program Manager[13%]
7.1.41	Sponsor meetings 41	2 hrs	1 day	Tue 23-01-10	Tue 23-01-10		Project Manager[13%],Program Manager[13%]
7.1.42	Sponsor meetings 42	2 hrs	1 day	Tue 23-02-14	Tue 23-02-14		Project Manager[13%],Program Manager[13%]
7.1.43	Sponsor meetings 43	2 hrs	1 day	Tue 23-03-14	Tue 23-03-14		Project Manager[13%],Program Manager[13%]
7.1.44	Sponsor meetings 44	2 hrs	1 day	Tue 23-04-11	Tue 23-04-11		Project Manager[13%],Program Manager[13%]
7.1.45	Sponsor meetings 45	2 hrs	1 day	Tue 23-05-09	Tue 23-05-09		Project Manager[13%],Program Manager[13%]
7.1.46	Sponsor meetings 46	2 hrs	1 day	Tue 23-06-13	Tue 23-06-13		Project Manager[13%],Program Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.1.47	Sponsor meetings 47	2 hrs	1 day	Tue 23-07-11	Tue 23-07-11		Project Manager[13%],Program Manager[13%]
7.1.48	Sponsor meetings 48	2 hrs	1 day	Tue 23-08-08	Tue 23-08-08		Project Manager[13%],Program Manager[13%]
7.1.49	Sponsor meetings 49	2 hrs	1 day	Tue 23-09-12	Tue 23-09-12		Project Manager[13%],Program Manager[13%]
7.1.50	Sponsor meetings 50	2 hrs	1 day	Tue 23-10-10	Tue 23-10-10		Project Manager[13%],Program Manager[13%]
7.1.51	Sponsor meetings 51	2 hrs	1 day	Tue 23-11-14	Tue 23-11-14		Project Manager[13%],Program Manager[13%]
7.1.52	Sponsor meetings 52	2 hrs	1 day	Tue 23-12-12	Tue 23-12-12		Project Manager[13%],Program Manager[13%]
7.1.53	Sponsor meetings 53	2 hrs	1 day	Tue 24-01-09	Tue 24-01-09		Project Manager[13%],Program Manager[13%]
7.1.54	Sponsor meetings 54	2 hrs	1 day	Tue 24-02-13	Tue 24-02-13		Project Manager[13%],Program Manager[13%]
7.1.55	Sponsor meetings 55	2 hrs	1 day	Tue 24-03-12	Tue 24-03-12		Project Manager[13%],Program Manager[13%]
7.1.56	Sponsor meetings 56	2 hrs	1 day	Tue 24-04-09	Tue 24-04-09		Project Manager[13%],Program Manager[13%]
7.1.57	Sponsor meetings 57	2 hrs	1 day	Tue 24-05-14	Tue 24-05-14		Project Manager[13%],Program Manager[13%]
7.1.58	Sponsor meetings 58	2 hrs	1 day	Tue 24-06-11	Tue 24-06-11		Project Manager[13%],Program Manager[13%]
7.1.59	Sponsor meetings 59	2 hrs	1 day	Tue 24-07-09	Tue 24-07-09		Project Manager[13%],Program Manager[13%]
7.1.60	Sponsor meetings 60	2 hrs	1 day	Tue 24-08-13	Tue 24-08-13		Project Manager[13%],Program Manager[13%]
7.1.61	Sponsor meetings 61	2 hrs	1 day	Tue 24-09-10	Tue 24-09-10		Project Manager[13%],Program Manager[13%]
7.1.62	Sponsor meetings 62	2 hrs	1 day	Tue 24-10-08	Tue 24-10-08		Project Manager[13%],Program Manager[13%]
7.2	Project Team Meetings	810 hrs	1388.73 days	Wed 19-09-04	Wed 24-10-23		
7.2.1	Project Team Meetings 1	6 hrs	1 day	Wed 19-09-04	Wed 19-09-04		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.2	Project Team Meetings 2	6 hrs	1 day	Wed 19-09-18	Wed 19-09-18		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.3	Project Team Meetings 3	6 hrs	1 day	Wed 19-10-02	Wed 19-10-02		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.4	Project Team Meetings 4	6 hrs	1 day	Wed 19-10-16	Wed 19-10-16		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.5	Project Team Meetings 5	6 hrs	1 day	Wed 19-10-30	Wed 19-10-30		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.6	Project Team Meetings 6	6 hrs	1 day	Wed 19-11-13	Wed 19-11-13		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.7	Project Team Meetings 7	6 hrs	1 day	Wed 19-11-27	Wed 19-11-27		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.8	Project Team Meetings 8	6 hrs	1 day	Wed 19-12-11	Wed 19-12-11		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.9	Project Team Meetings 9	6 hrs	1 day	Fri 19-12-27	Fri 19-12-27		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.10	Project Team Meetings 10	6 hrs	1 day	Wed 20-01-08	Wed 20-01-08		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.11	Project Team Meetings 11	6 hrs	1 day	Wed 20-01-22	Wed 20-01-22		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.12	Project Team Meetings 12	6 hrs	1 day	Wed 20-02-05	Wed 20-02-05		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.13	Project Team Meetings 13	6 hrs	1 day	Wed 20-02-19	Wed 20-02-19		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.14	Project Team Meetings 14	6 hrs	1 day	Wed 20-03-04	Wed 20-03-04		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.15	Project Team Meetings 15	6 hrs	1 day	Wed 20-03-18	Wed 20-03-18		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.16	Project Team Meetings 16	6 hrs	1 day	Wed 20-04-01	Wed 20-04-01		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.17	Project Team Meetings 17	6 hrs	1 day	Wed 20-04-15	Wed 20-04-15		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.18	Project Team Meetings 18	6 hrs	1 day	Wed 20-04-29	Wed 20-04-29		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.19	Project Team Meetings 19	6 hrs	1 day	Wed 20-05-13	Wed 20-05-13		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.20	Project Team Meetings 20	6 hrs	1 day	Wed 20-05-27	Wed 20-05-27		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.21	Project Team Meetings 21	6 hrs	1 day	Wed 20-06-10	Wed 20-06-10		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.22	Project Team Meetings 22	6 hrs	1 day	Wed 20-06-24	Wed 20-06-24		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.23	Project Team Meetings 23	6 hrs	1 day	Wed 20-07-08	Wed 20-07-08		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.24	Project Team Meetings 24	6 hrs	1 day	Wed 20-07-22	Wed 20-07-22		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.25	Project Team Meetings 25	6 hrs	1 day	Wed 20-08-05	Wed 20-08-05		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.26	Project Team Meetings 26	6 hrs	1 day	Wed 20-08-19	Wed 20-08-19		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.27	Project Team Meetings 27	6 hrs	1 day	Wed 20-09-02	Wed 20-09-02		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.28	Project Team Meetings 28	6 hrs	1 day	Wed 20-09-16	Wed 20-09-16		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.29	Project Team Meetings 29	6 hrs	1 day	Wed 20-09-30	Wed 20-09-30		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.30	Project Team Meetings 30	6 hrs	1 day	Wed 20-10-14	Wed 20-10-14		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.31	Project Team Meetings 31	6 hrs	1 day	Wed 20-10-28	Wed 20-10-28		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.32	Project Team Meetings 32	6 hrs	1 day	Thu 20-11-12	Thu 20-11-12		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.33	Project Team Meetings 33	6 hrs	1 day	Wed 20-11-25	Wed 20-11-25		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.34	Project Team Meetings 34	6 hrs	1 day	Wed 20-12-09	Wed 20-12-09		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.35	Project Team Meetings 35	6 hrs	1 day	Wed 20-12-23	Wed 20-12-23		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.36	Project Team Meetings 36	6 hrs	1 day	Wed 21-01-06	Wed 21-01-06		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.37	Project Team Meetings 37	6 hrs	1 day	Wed 21-01-20	Wed 21-01-20		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.38	Project Team Meetings 38	6 hrs	1 day	Wed 21-02-03	Wed 21-02-03		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.39	Project Team Meetings 39	6 hrs	1 day	Wed 21-02-17	Wed 21-02-17		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.40	Project Team Meetings 40	6 hrs	1 day	Wed 21-03-03	Wed 21-03-03		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.41	Project Team Meetings 41	6 hrs	1 day	Wed 21-03-17	Wed 21-03-17		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.42	Project Team Meetings 42	6 hrs	1 day	Wed 21-03-31	Wed 21-03-31		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.43	Project Team Meetings 43	6 hrs	1 day	Wed 21-04-14	Wed 21-04-14		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.44	Project Team Meetings 44	6 hrs	1 day	Wed 21-04-28	Wed 21-04-28		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.45	Project Team Meetings 45	6 hrs	1 day	Wed 21-05-12	Wed 21-05-12		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.46	Project Team Meetings 46	6 hrs	1 day	Wed 21-05-26	Wed 21-05-26		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.47	Project Team Meetings 47	6 hrs	1 day	Wed 21-06-09	Wed 21-06-09		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.48	Project Team Meetings 48	6 hrs	1 day	Wed 21-06-23	Wed 21-06-23		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.49	Project Team Meetings 49	6 hrs	1 day	Wed 21-07-07	Wed 21-07-07		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.50	Project Team Meetings 50	6 hrs	1 day	Wed 21-07-21	Wed 21-07-21		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.51	Project Team Meetings 51	6 hrs	1 day	Wed 21-08-04	Wed 21-08-04		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.52	Project Team Meetings 52	6 hrs	1 day	Wed 21-08-18	Wed 21-08-18		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.53	Project Team Meetings 53	6 hrs	1 day	Wed 21-09-01	Wed 21-09-01		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.54	Project Team Meetings 54	6 hrs	1 day	Wed 21-09-15	Wed 21-09-15		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.55	Project Team Meetings 55	6 hrs	1 day	Wed 21-09-29	Wed 21-09-29		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.56	Project Team Meetings 56	6 hrs	1 day	Wed 21-10-13	Wed 21-10-13		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.57	Project Team Meetings 57	6 hrs	1 day	Wed 21-10-27	Wed 21-10-27		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.58	Project Team Meetings 58	6 hrs	1 day	Wed 21-11-10	Wed 21-11-10		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.59	Project Team Meetings 59	6 hrs	1 day	Wed 21-11-24	Wed 21-11-24		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.60	Project Team Meetings 60	6 hrs	1 day	Wed 21-12-08	Wed 21-12-08		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.61	Project Team Meetings 61	6 hrs	1 day	Wed 21-12-22	Wed 21-12-22		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.62	Project Team Meetings 62	6 hrs	1 day	Wed 22-01-05	Wed 22-01-05		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.63	Project Team Meetings 63	6 hrs	1 day	Wed 22-01-19	Wed 22-01-19		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.64	Project Team Meetings 64	6 hrs	1 day	Wed 22-02-02	Wed 22-02-02		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.65	Project Team Meetings 65	6 hrs	1 day	Wed 22-02-16	Wed 22-02-16		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.66	Project Team Meetings 66	6 hrs	1 day	Wed 22-03-02	Wed 22-03-02		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.67	Project Team Meetings 67	6 hrs	1 day	Wed 22-03-16	Wed 22-03-16		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.68	Project Team Meetings 68	6 hrs	1 day	Wed 22-03-30	Wed 22-03-30		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.69	Project Team Meetings 69	6 hrs	1 day	Wed 22-04-13	Wed 22-04-13		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.70	Project Team Meetings 70	6 hrs	1 day	Wed 22-04-27	Wed 22-04-27		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.71	Project Team Meetings 71	6 hrs	1 day	Wed 22-05-11	Wed 22-05-11		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.72	Project Team Meetings 72	6 hrs	1 day	Wed 22-05-25	Wed 22-05-25		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.73	Project Team Meetings 73	6 hrs	1 day	Wed 22-06-08	Wed 22-06-08		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.74	Project Team Meetings 74	6 hrs	1 day	Wed 22-06-22	Wed 22-06-22		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.75	Project Team Meetings 75	6 hrs	1 day	Wed 22-07-06	Wed 22-07-06		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.76	Project Team Meetings 76	6 hrs	1 day	Wed 22-07-20	Wed 22-07-20		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.77	Project Team Meetings 77	6 hrs	1 day	Wed 22-08-03	Wed 22-08-03		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.78	Project Team Meetings 78	6 hrs	1 day	Wed 22-08-17	Wed 22-08-17		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.79	Project Team Meetings 79	6 hrs	1 day	Wed 22-08-31	Wed 22-08-31		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.80	Project Team Meetings 80	6 hrs	1 day	Wed 22-09-14	Wed 22-09-14		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.81	Project Team Meetings 81	6 hrs	1 day	Wed 22-09-28	Wed 22-09-28		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.82	Project Team Meetings 82	6 hrs	1 day	Wed 22-10-12	Wed 22-10-12		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.83	Project Team Meetings 83	6 hrs	1 day	Wed 22-10-26	Wed 22-10-26		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.84	Project Team Meetings 84	6 hrs	1 day	Wed 22-11-09	Wed 22-11-09		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.85	Project Team Meetings 85	6 hrs	1 day	Wed 22-11-23	Wed 22-11-23		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.86	Project Team Meetings 86	6 hrs	1 day	Wed 22-12-07	Wed 22-12-07		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.87	Project Team Meetings 87	6 hrs	1 day	Wed 22-12-21	Wed 22-12-21		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.88	Project Team Meetings 88	6 hrs	1 day	Wed 23-01-04	Wed 23-01-04		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.89	Project Team Meetings 89	6 hrs	1 day	Wed 23-01-18	Wed 23-01-18		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.90	Project Team Meetings 90	6 hrs	1 day	Wed 23-02-01	Wed 23-02-01		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.91	Project Team Meetings 91	6 hrs	1 day	Wed 23-02-15	Wed 23-02-15		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.92	Project Team Meetings 92	6 hrs	1 day	Wed 23-03-01	Wed 23-03-01		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.93	Project Team Meetings 93	6 hrs	1 day	Wed 23-03-15	Wed 23-03-15		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.94	Project Team Meetings 94	6 hrs	1 day	Wed 23-03-29	Wed 23-03-29		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.95	Project Team Meetings 95	6 hrs	1 day	Wed 23-04-12	Wed 23-04-12		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.96	Project Team Meetings 96	6 hrs	1 day	Wed 23-04-26	Wed 23-04-26		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.97	Project Team Meetings 97	6 hrs	1 day	Wed 23-05-10	Wed 23-05-10		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.98	Project Team Meetings 98	6 hrs	1 day	Wed 23-05-24	Wed 23-05-24		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.99	Project Team Meetings 99	6 hrs	1 day	Wed 23-06-07	Wed 23-06-07		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.100	Project Team Meetings 100	6 hrs	1 day	Wed 23-06-21	Wed 23-06-21		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.101	Project Team Meetings 101	6 hrs	1 day	Wed 23-07-05	Wed 23-07-05		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.102	Project Team Meetings 102	6 hrs	1 day	Wed 23-07-19	Wed 23-07-19		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.103	Project Team Meetings 103	6 hrs	1 day	Wed 23-08-02	Wed 23-08-02		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.104	Project Team Meetings 104	6 hrs	1 day	Wed 23-08-16	Wed 23-08-16		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.105	Project Team Meetings 105	6 hrs	1 day	Wed 23-08-30	Wed 23-08-30		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.106	Project Team Meetings 106	6 hrs	1 day	Wed 23-09-13	Wed 23-09-13		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.107	Project Team Meetings 107	6 hrs	1 day	Wed 23-09-27	Wed 23-09-27		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.108	Project Team Meetings 108	6 hrs	1 day	Wed 23-10-11	Wed 23-10-11		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.109	Project Team Meetings 109	6 hrs	1 day	Wed 23-10-25	Wed 23-10-25		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.110	Project Team Meetings 110	6 hrs	1 day	Wed 23-11-08	Wed 23-11-08		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.111	Project Team Meetings 111	6 hrs	1 day	Wed 23-11-22	Wed 23-11-22		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.112	Project Team Meetings 112	6 hrs	1 day	Wed 23-12-06	Wed 23-12-06		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.113	Project Team Meetings 113	6 hrs	1 day	Wed 23-12-20	Wed 23-12-20		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.114	Project Team Meetings 114	6 hrs	1 day	Wed 24-01-03	Wed 24-01-03		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.115	Project Team Meetings 115	6 hrs	1 day	Wed 24-01-17	Wed 24-01-17		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.116	Project Team Meetings 116	6 hrs	1 day	Wed 24-01-31	Wed 24-01-31		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.117	Project Team Meetings 117	6 hrs	1 day	Wed 24-02-14	Wed 24-02-14		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.118	Project Team Meetings 118	6 hrs	1 day	Wed 24-02-28	Wed 24-02-28		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.119	Project Team Meetings 119	6 hrs	1 day	Wed 24-03-13	Wed 24-03-13		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.120	Project Team Meetings 120	6 hrs	1 day	Wed 24-03-27	Wed 24-03-27		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.121	Project Team Meetings 121	6 hrs	1 day	Wed 24-04-10	Wed 24-04-10		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.122	Project Team Meetings 122	6 hrs	1 day	Wed 24-04-24	Wed 24-04-24		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.123	Project Team Meetings 123	6 hrs	1 day	Wed 24-05-08	Wed 24-05-08		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.124	Project Team Meetings 124	6 hrs	1 day	Wed 24-05-22	Wed 24-05-22		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.125	Project Team Meetings 125	6 hrs	1 day	Wed 24-06-05	Wed 24-06-05		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.126	Project Team Meetings 126	6 hrs	1 day	Wed 24-06-19	Wed 24-06-19		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.127	Project Team Meetings 127	6 hrs	1 day	Wed 24-07-03	Wed 24-07-03		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.128	Project Team Meetings 128	6 hrs	1 day	Wed 24-07-17	Wed 24-07-17		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.129	Project Team Meetings 129	6 hrs	1 day	Wed 24-07-31	Wed 24-07-31		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.130	Project Team Meetings 130	6 hrs	1 day	Wed 24-08-14	Wed 24-08-14		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.131	Project Team Meetings 131	6 hrs	1 day	Wed 24-08-28	Wed 24-08-28		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.132	Project Team Meetings 132	6 hrs	1 day	Wed 24-09-11	Wed 24-09-11		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.133	Project Team Meetings 133	6 hrs	1 day	Wed 24-09-25	Wed 24-09-25		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.2.134	Project Team Meetings 134	6 hrs	1 day	Wed 24-10-09	Wed 24-10-09		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.2.135	Project Team Meetings 135	6 hrs	1 day	Wed 24-10-23	Wed 24-10-23		Business Analyst[13%],Data Analyst[13%],Developer 1[13%],Developer 2[13%],Program Manager[13%],Project Manager[13%]
7.3	Schedule Management	538 hrs	1388.73 days	Thu 19-09-05	Thu 24-10-24		
7.3.1	Schedule Management 1	2 hrs	1 day	Thu 19-09-05	Thu 19-09-05		Project Manager[13%],Program Manager
7.3.2	Schedule Management 2	2 hrs	1 day	Thu 19-09-12	Thu 19-09-12		Project Manager[13%],Program Manager
7.3.3	Schedule Management 3	2 hrs	1 day	Thu 19-09-19	Thu 19-09-19		Project Manager[13%],Program Manager
7.3.4	Schedule Management 4	2 hrs	1 day	Thu 19-09-26	Thu 19-09-26		Project Manager[13%],Program Manager
7.3.5	Schedule Management 5	2 hrs	1 day	Thu 19-10-03	Thu 19-10-03		Project Manager[13%],Program Manager
7.3.6	Schedule Management 6	2 hrs	1 day	Thu 19-10-10	Thu 19-10-10		Project Manager[13%],Program Manager
7.3.7	Schedule Management 7	2 hrs	1 day	Thu 19-10-17	Thu 19-10-17		Project Manager[13%],Program Manager
7.3.8	Schedule Management 8	2 hrs	1 day	Thu 19-10-24	Thu 19-10-24		Project Manager[13%],Program Manager
7.3.9	Schedule Management 9	2 hrs	1 day	Thu 19-10-31	Thu 19-10-31		Project Manager[13%],Program Manager
7.3.10	Schedule Management 10	2 hrs	1 day	Thu 19-11-07	Thu 19-11-07		Project Manager[13%],Program Manager
7.3.11	Schedule Management 11	2 hrs	1 day	Thu 19-11-14	Thu 19-11-14		Project Manager[13%],Program Manager
7.3.12	Schedule Management 12	2 hrs	1 day	Thu 19-11-21	Thu 19-11-21		Project Manager[13%],Program Manager
7.3.13	Schedule Management 13	2 hrs	1 day	Thu 19-11-28	Thu 19-11-28		Project Manager[13%],Program Manager
7.3.14	Schedule Management 14	2 hrs	1 day	Thu 19-12-05	Thu 19-12-05		Project Manager[13%],Program Manager
7.3.15	Schedule Management 15	2 hrs	1 day	Thu 19-12-12	Thu 19-12-12		Project Manager[13%],Program Manager
7.3.16	Schedule Management 16	2 hrs	1 day	Thu 19-12-19	Thu 19-12-19		Project Manager[13%],Program Manager
7.3.17	Schedule Management 17	2 hrs	1 day	Fri 19-12-27	Fri 19-12-27		Project Manager[13%],Program Manager
7.3.18	Schedule Management 18	2 hrs	1 day	Thu 20-01-02	Thu 20-01-02		Project Manager[13%],Program Manager
7.3.19	Schedule Management 19	2 hrs	1 day	Thu 20-01-09	Thu 20-01-09		Project Manager[13%],Program Manager
7.3.20	Schedule Management 20	2 hrs	1 day	Thu 20-01-16	Thu 20-01-16		Project Manager[13%],Program Manager
7.3.21	Schedule Management 21	2 hrs	1 day	Thu 20-01-23	Thu 20-01-23		Project Manager[13%],Program Manager
7.3.22	Schedule Management 22	2 hrs	1 day	Thu 20-01-30	Thu 20-01-30		Project Manager[13%],Program Manager
7.3.23	Schedule Management 23	2 hrs	1 day	Thu 20-02-06	Thu 20-02-06		Project Manager[13%],Program Manager
7.3.24	Schedule Management 24	2 hrs	1 day	Thu 20-02-13	Thu 20-02-13		Project Manager[13%],Program Manager
7.3.25	Schedule Management 25	2 hrs	1 day	Thu 20-02-20	Thu 20-02-20		Project Manager[13%],Program Manager
7.3.26	Schedule Management 26	2 hrs	1 day	Thu 20-02-27	Thu 20-02-27		Project Manager[13%],Program Manager
7.3.27	Schedule Management 27	2 hrs	1 day	Thu 20-03-05	Thu 20-03-05		Project Manager[13%],Program Manager
7.3.28	Schedule Management 28	2 hrs	1 day	Thu 20-03-12	Thu 20-03-12		Project Manager[13%],Program Manager
7.3.29	Schedule Management 29	2 hrs	1 day	Thu 20-03-19	Thu 20-03-19		Project Manager[13%],Program Manager
7.3.30	Schedule Management 30	2 hrs	1 day	Thu 20-03-26	Thu 20-03-26		Project Manager[13%],Program Manager
7.3.31	Schedule Management 31	2 hrs	1 day	Thu 20-04-02	Thu 20-04-02		Project Manager[13%],Program Manager
7.3.32	Schedule Management 32	2 hrs	1 day	Thu 20-04-09	Thu 20-04-09		Project Manager[13%],Program Manager
7.3.33	Schedule Management 33	2 hrs	1 day	Thu 20-04-16	Thu 20-04-16		Project Manager[13%],Program Manager
7.3.34	Schedule Management 34	2 hrs	1 day	Thu 20-04-23	Thu 20-04-23		Project Manager[13%],Program Manager
7.3.35	Schedule Management 35	2 hrs	1 day	Thu 20-04-30	Thu 20-04-30		Project Manager[13%],Program Manager
7.3.36	Schedule Management 36	2 hrs	1 day	Thu 20-05-07	Thu 20-05-07		Project Manager[13%],Program Manager
7.3.37	Schedule Management 37	2 hrs	1 day	Thu 20-05-14	Thu 20-05-14		Project Manager[13%],Program Manager
7.3.38	Schedule Management 38	2 hrs	1 day	Thu 20-05-21	Thu 20-05-21		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.3.39	Schedule Management 39	2 hrs	1 day	Thu 20-05-28	Thu 20-05-28		Project Manager[13%],Program Manager
7.3.40	Schedule Management 40	2 hrs	1 day	Thu 20-06-04	Thu 20-06-04		Project Manager[13%],Program Manager
7.3.41	Schedule Management 41	2 hrs	1 day	Thu 20-06-11	Thu 20-06-11		Project Manager[13%],Program Manager
7.3.42	Schedule Management 42	2 hrs	1 day	Thu 20-06-18	Thu 20-06-18		Project Manager[13%],Program Manager
7.3.43	Schedule Management 43	2 hrs	1 day	Thu 20-06-25	Thu 20-06-25		Project Manager[13%],Program Manager
7.3.44	Schedule Management 44	2 hrs	1 day	Thu 20-07-02	Thu 20-07-02		Project Manager[13%],Program Manager
7.3.45	Schedule Management 45	2 hrs	1 day	Thu 20-07-09	Thu 20-07-09		Project Manager[13%],Program Manager
7.3.46	Schedule Management 46	2 hrs	1 day	Thu 20-07-16	Thu 20-07-16		Project Manager[13%],Program Manager
7.3.47	Schedule Management 47	2 hrs	1 day	Thu 20-07-23	Thu 20-07-23		Project Manager[13%],Program Manager
7.3.48	Schedule Management 48	2 hrs	1 day	Thu 20-07-30	Thu 20-07-30		Project Manager[13%],Program Manager
7.3.49	Schedule Management 49	2 hrs	1 day	Thu 20-08-06	Thu 20-08-06		Project Manager[13%],Program Manager
7.3.50	Schedule Management 50	2 hrs	1 day	Thu 20-08-13	Thu 20-08-13		Project Manager[13%],Program Manager
7.3.51	Schedule Management 51	2 hrs	1 day	Thu 20-08-20	Thu 20-08-20		Project Manager[13%],Program Manager
7.3.52	Schedule Management 52	2 hrs	1 day	Thu 20-08-27	Thu 20-08-27		Project Manager[13%],Program Manager
7.3.53	Schedule Management 53	2 hrs	1 day	Thu 20-09-03	Thu 20-09-03		Project Manager[13%],Program Manager
7.3.54	Schedule Management 54	2 hrs	1 day	Thu 20-09-10	Thu 20-09-10		Project Manager[13%],Program Manager
7.3.55	Schedule Management 55	2 hrs	1 day	Thu 20-09-17	Thu 20-09-17		Project Manager[13%],Program Manager
7.3.56	Schedule Management 56	2 hrs	1 day	Thu 20-09-24	Thu 20-09-24		Project Manager[13%],Program Manager
7.3.57	Schedule Management 57	2 hrs	1 day	Thu 20-10-01	Thu 20-10-01		Project Manager[13%],Program Manager
7.3.58	Schedule Management 58	2 hrs	1 day	Thu 20-10-08	Thu 20-10-08		Project Manager[13%],Program Manager
7.3.59	Schedule Management 59	2 hrs	1 day	Thu 20-10-15	Thu 20-10-15		Project Manager[13%],Program Manager
7.3.60	Schedule Management 60	2 hrs	1 day	Thu 20-10-22	Thu 20-10-22		Project Manager[13%],Program Manager
7.3.61	Schedule Management 61	2 hrs	1 day	Thu 20-10-29	Thu 20-10-29		Project Manager[13%],Program Manager
7.3.62	Schedule Management 62	2 hrs	1 day	Thu 20-11-05	Thu 20-11-05		Project Manager[13%],Program Manager
7.3.63	Schedule Management 63	2 hrs	1 day	Thu 20-11-12	Thu 20-11-12		Project Manager[13%],Program Manager
7.3.64	Schedule Management 64	2 hrs	1 day	Thu 20-11-19	Thu 20-11-19		Project Manager[13%],Program Manager
7.3.65	Schedule Management 65	2 hrs	1 day	Thu 20-11-26	Thu 20-11-26		Project Manager[13%],Program Manager
7.3.66	Schedule Management 66	2 hrs	1 day	Thu 20-12-03	Thu 20-12-03		Project Manager[13%],Program Manager
7.3.67	Schedule Management 67	2 hrs	1 day	Thu 20-12-10	Thu 20-12-10		Project Manager[13%],Program Manager
7.3.68	Schedule Management 68	2 hrs	1 day	Thu 20-12-17	Thu 20-12-17		Project Manager[13%],Program Manager
7.3.69	Schedule Management 69	2 hrs	1 day	Thu 20-12-24	Thu 20-12-24		Project Manager[13%],Program Manager
7.3.70	Schedule Management 70	2 hrs	1 day	Thu 20-12-31	Thu 20-12-31		Project Manager[13%],Program Manager
7.3.71	Schedule Management 71	2 hrs	1 day	Thu 21-01-07	Thu 21-01-07		Project Manager[13%],Program Manager
7.3.72	Schedule Management 72	2 hrs	1 day	Thu 21-01-14	Thu 21-01-14		Project Manager[13%],Program Manager
7.3.73	Schedule Management 73	2 hrs	1 day	Thu 21-01-21	Thu 21-01-21		Project Manager[13%],Program Manager
7.3.74	Schedule Management 74	2 hrs	1 day	Thu 21-01-28	Thu 21-01-28		Project Manager[13%],Program Manager
7.3.75	Schedule Management 75	2 hrs	1 day	Thu 21-02-04	Thu 21-02-04		Project Manager[13%],Program Manager
7.3.76	Schedule Management 76	2 hrs	1 day	Thu 21-02-11	Thu 21-02-11		Project Manager[13%],Program Manager
7.3.77	Schedule Management 77	2 hrs	1 day	Thu 21-02-18	Thu 21-02-18		Project Manager[13%],Program Manager
7.3.78	Schedule Management 78	2 hrs	1 day	Thu 21-02-25	Thu 21-02-25		Project Manager[13%],Program Manager
7.3.79	Schedule Management 79	2 hrs	1 day	Thu 21-03-04	Thu 21-03-04		Project Manager[13%],Program Manager
7.3.80	Schedule Management 80	2 hrs	1 day	Thu 21-03-11	Thu 21-03-11		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.3.81	Schedule Management 81	2 hrs	1 day	Thu 21-03-18	Thu 21-03-18		Project Manager[13%],Program Manager
7.3.82	Schedule Management 82	2 hrs	1 day	Thu 21-03-25	Thu 21-03-25		Project Manager[13%],Program Manager
7.3.83	Schedule Management 83	2 hrs	1 day	Thu 21-04-01	Thu 21-04-01		Project Manager[13%],Program Manager
7.3.84	Schedule Management 84	2 hrs	1 day	Thu 21-04-08	Thu 21-04-08		Project Manager[13%],Program Manager
7.3.85	Schedule Management 85	2 hrs	1 day	Thu 21-04-15	Thu 21-04-15		Project Manager[13%],Program Manager
7.3.86	Schedule Management 86	2 hrs	1 day	Thu 21-04-22	Thu 21-04-22		Project Manager[13%],Program Manager
7.3.87	Schedule Management 87	2 hrs	1 day	Thu 21-04-29	Thu 21-04-29		Project Manager[13%],Program Manager
7.3.88	Schedule Management 88	2 hrs	1 day	Thu 21-05-06	Thu 21-05-06		Project Manager[13%],Program Manager
7.3.89	Schedule Management 89	2 hrs	1 day	Thu 21-05-13	Thu 21-05-13		Project Manager[13%],Program Manager
7.3.90	Schedule Management 90	2 hrs	1 day	Thu 21-05-20	Thu 21-05-20		Project Manager[13%],Program Manager
7.3.91	Schedule Management 91	2 hrs	1 day	Thu 21-05-27	Thu 21-05-27		Project Manager[13%],Program Manager
7.3.92	Schedule Management 92	2 hrs	1 day	Thu 21-06-03	Thu 21-06-03		Project Manager[13%],Program Manager
7.3.93	Schedule Management 93	2 hrs	1 day	Thu 21-06-10	Thu 21-06-10		Project Manager[13%],Program Manager
7.3.94	Schedule Management 94	2 hrs	1 day	Thu 21-06-17	Thu 21-06-17		Project Manager[13%],Program Manager
7.3.95	Schedule Management 95	2 hrs	1 day	Thu 21-06-24	Thu 21-06-24		Project Manager[13%],Program Manager
7.3.96	Schedule Management 96	2 hrs	1 day	Fri 21-07-02	Fri 21-07-02		Project Manager[13%],Program Manager
7.3.97	Schedule Management 97	2 hrs	1 day	Thu 21-07-08	Thu 21-07-08		Project Manager[13%],Program Manager
7.3.98	Schedule Management 98	2 hrs	1 day	Thu 21-07-15	Thu 21-07-15		Project Manager[13%],Program Manager
7.3.99	Schedule Management 99	2 hrs	1 day	Thu 21-07-22	Thu 21-07-22		Project Manager[13%],Program Manager
7.3.100	Schedule Management 100	2 hrs	1 day	Thu 21-07-29	Thu 21-07-29		Project Manager[13%],Program Manager
7.3.101	Schedule Management 101	2 hrs	1 day	Thu 21-08-05	Thu 21-08-05		Project Manager[13%],Program Manager
7.3.102	Schedule Management 102	2 hrs	1 day	Thu 21-08-12	Thu 21-08-12		Project Manager[13%],Program Manager
7.3.103	Schedule Management 103	2 hrs	1 day	Thu 21-08-19	Thu 21-08-19		Project Manager[13%],Program Manager
7.3.104	Schedule Management 104	2 hrs	1 day	Thu 21-08-26	Thu 21-08-26		Project Manager[13%],Program Manager
7.3.105	Schedule Management 105	2 hrs	1 day	Thu 21-09-02	Thu 21-09-02		Project Manager[13%],Program Manager
7.3.106	Schedule Management 106	2 hrs	1 day	Thu 21-09-09	Thu 21-09-09		Project Manager[13%],Program Manager
7.3.107	Schedule Management 107	2 hrs	1 day	Thu 21-09-16	Thu 21-09-16		Project Manager[13%],Program Manager
7.3.108	Schedule Management 108	2 hrs	1 day	Thu 21-09-23	Thu 21-09-23		Project Manager[13%],Program Manager
7.3.109	Schedule Management 109	2 hrs	1 day	Thu 21-09-30	Thu 21-09-30		Project Manager[13%],Program Manager
7.3.110	Schedule Management 110	2 hrs	1 day	Thu 21-10-07	Thu 21-10-07		Project Manager[13%],Program Manager
7.3.111	Schedule Management 111	2 hrs	1 day	Thu 21-10-14	Thu 21-10-14		Project Manager[13%],Program Manager
7.3.112	Schedule Management 112	2 hrs	1 day	Thu 21-10-21	Thu 21-10-21		Project Manager[13%],Program Manager
7.3.113	Schedule Management 113	2 hrs	1 day	Thu 21-10-28	Thu 21-10-28		Project Manager[13%],Program Manager
7.3.114	Schedule Management 114	2 hrs	1 day	Thu 21-11-04	Thu 21-11-04		Project Manager[13%],Program Manager
7.3.115	Schedule Management 115	2 hrs	1 day	Fri 21-11-12	Fri 21-11-12		Project Manager[13%],Program Manager
7.3.116	Schedule Management 116	2 hrs	1 day	Thu 21-11-18	Thu 21-11-18		Project Manager[13%],Program Manager
7.3.117	Schedule Management 117	2 hrs	1 day	Thu 21-11-25	Thu 21-11-25		Project Manager[13%],Program Manager
7.3.118	Schedule Management 118	2 hrs	1 day	Thu 21-12-02	Thu 21-12-02		Project Manager[13%],Program Manager
7.3.119	Schedule Management 119	2 hrs	1 day	Thu 21-12-09	Thu 21-12-09		Project Manager[13%],Program Manager
7.3.120	Schedule Management 120	2 hrs	1 day	Thu 21-12-16	Thu 21-12-16		Project Manager[13%],Program Manager
7.3.121	Schedule Management 121	2 hrs	1 day	Thu 21-12-23	Thu 21-12-23		Project Manager[13%],Program Manager
7.3.122	Schedule Management 122	2 hrs	1 day	Thu 21-12-30	Thu 21-12-30		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.3.123	Schedule Management 123	2 hrs	1 day	Thu 22-01-06	Thu 22-01-06		Project Manager[13%],Program Manager
7.3.124	Schedule Management 124	2 hrs	1 day	Thu 22-01-13	Thu 22-01-13		Project Manager[13%],Program Manager
7.3.125	Schedule Management 125	2 hrs	1 day	Thu 22-01-20	Thu 22-01-20		Project Manager[13%],Program Manager
7.3.126	Schedule Management 126	2 hrs	1 day	Thu 22-01-27	Thu 22-01-27		Project Manager[13%],Program Manager
7.3.127	Schedule Management 127	2 hrs	1 day	Thu 22-02-03	Thu 22-02-03		Project Manager[13%],Program Manager
7.3.128	Schedule Management 128	2 hrs	1 day	Thu 22-02-10	Thu 22-02-10		Project Manager[13%],Program Manager
7.3.129	Schedule Management 129	2 hrs	1 day	Thu 22-02-17	Thu 22-02-17		Project Manager[13%],Program Manager
7.3.130	Schedule Management 130	2 hrs	1 day	Thu 22-02-24	Thu 22-02-24		Project Manager[13%],Program Manager
7.3.131	Schedule Management 131	2 hrs	1 day	Thu 22-03-03	Thu 22-03-03		Project Manager[13%],Program Manager
7.3.132	Schedule Management 132	2 hrs	1 day	Thu 22-03-10	Thu 22-03-10		Project Manager[13%],Program Manager
7.3.133	Schedule Management 133	2 hrs	1 day	Thu 22-03-17	Thu 22-03-17		Project Manager[13%],Program Manager
7.3.134	Schedule Management 134	2 hrs	1 day	Thu 22-03-24	Thu 22-03-24		Project Manager[13%],Program Manager
7.3.135	Schedule Management 135	2 hrs	1 day	Thu 22-03-31	Thu 22-03-31		Project Manager[13%],Program Manager
7.3.136	Schedule Management 136	2 hrs	1 day	Thu 22-04-07	Thu 22-04-07		Project Manager[13%],Program Manager
7.3.137	Schedule Management 137	2 hrs	1 day	Thu 22-04-14	Thu 22-04-14		Project Manager[13%],Program Manager
7.3.138	Schedule Management 138	2 hrs	1 day	Thu 22-04-21	Thu 22-04-21		Project Manager[13%],Program Manager
7.3.139	Schedule Management 139	2 hrs	1 day	Thu 22-04-28	Thu 22-04-28		Project Manager[13%],Program Manager
7.3.140	Schedule Management 140	2 hrs	1 day	Thu 22-05-05	Thu 22-05-05		Project Manager[13%],Program Manager
7.3.141	Schedule Management 141	2 hrs	1 day	Thu 22-05-12	Thu 22-05-12		Project Manager[13%],Program Manager
7.3.142	Schedule Management 142	2 hrs	1 day	Thu 22-05-19	Thu 22-05-19		Project Manager[13%],Program Manager
7.3.143	Schedule Management 143	2 hrs	1 day	Thu 22-05-26	Thu 22-05-26		Project Manager[13%],Program Manager
7.3.144	Schedule Management 144	2 hrs	1 day	Thu 22-06-02	Thu 22-06-02		Project Manager[13%],Program Manager
7.3.145	Schedule Management 145	2 hrs	1 day	Thu 22-06-09	Thu 22-06-09		Project Manager[13%],Program Manager
7.3.146	Schedule Management 146	2 hrs	1 day	Thu 22-06-16	Thu 22-06-16		Project Manager[13%],Program Manager
7.3.147	Schedule Management 147	2 hrs	1 day	Thu 22-06-23	Thu 22-06-23		Project Manager[13%],Program Manager
7.3.148	Schedule Management 148	2 hrs	1 day	Thu 22-06-30	Thu 22-06-30		Project Manager[13%],Program Manager
7.3.149	Schedule Management 149	2 hrs	1 day	Thu 22-07-07	Thu 22-07-07		Project Manager[13%],Program Manager
7.3.150	Schedule Management 150	2 hrs	1 day	Thu 22-07-14	Thu 22-07-14		Project Manager[13%],Program Manager
7.3.151	Schedule Management 151	2 hrs	1 day	Thu 22-07-21	Thu 22-07-21		Project Manager[13%],Program Manager
7.3.152	Schedule Management 152	2 hrs	1 day	Thu 22-07-28	Thu 22-07-28		Project Manager[13%],Program Manager
7.3.153	Schedule Management 153	2 hrs	1 day	Thu 22-08-04	Thu 22-08-04		Project Manager[13%],Program Manager
7.3.154	Schedule Management 154	2 hrs	1 day	Thu 22-08-11	Thu 22-08-11		Project Manager[13%],Program Manager
7.3.155	Schedule Management 155	2 hrs	1 day	Thu 22-08-18	Thu 22-08-18		Project Manager[13%],Program Manager
7.3.156	Schedule Management 156	2 hrs	1 day	Thu 22-08-25	Thu 22-08-25		Project Manager[13%],Program Manager
7.3.157	Schedule Management 157	2 hrs	1 day	Thu 22-09-01	Thu 22-09-01		Project Manager[13%],Program Manager
7.3.158	Schedule Management 158	2 hrs	1 day	Thu 22-09-08	Thu 22-09-08		Project Manager[13%],Program Manager
7.3.159	Schedule Management 159	2 hrs	1 day	Thu 22-09-15	Thu 22-09-15		Project Manager[13%],Program Manager
7.3.160	Schedule Management 160	2 hrs	1 day	Thu 22-09-22	Thu 22-09-22		Project Manager[13%],Program Manager
7.3.161	Schedule Management 161	2 hrs	1 day	Thu 22-09-29	Thu 22-09-29		Project Manager[13%],Program Manager
7.3.162	Schedule Management 162	2 hrs	1 day	Thu 22-10-06	Thu 22-10-06		Project Manager[13%],Program Manager
7.3.163	Schedule Management 163	2 hrs	1 day	Thu 22-10-13	Thu 22-10-13		Project Manager[13%],Program Manager
7.3.164	Schedule Management 164	2 hrs	1 day	Thu 22-10-20	Thu 22-10-20		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.3.165	Schedule Management 165	2 hrs	1 day	Thu 22-10-27	Thu 22-10-27		Project Manager[13%],Program Manager
7.3.166	Schedule Management 166	2 hrs	1 day	Thu 22-11-03	Thu 22-11-03		Project Manager[13%],Program Manager
7.3.167	Schedule Management 167	2 hrs	1 day	Thu 22-11-10	Thu 22-11-10		Project Manager[13%],Program Manager
7.3.168	Schedule Management 168	2 hrs	1 day	Thu 22-11-17	Thu 22-11-17		Project Manager[13%],Program Manager
7.3.169	Schedule Management 169	2 hrs	1 day	Thu 22-11-24	Thu 22-11-24		Project Manager[13%],Program Manager
7.3.170	Schedule Management 170	2 hrs	1 day	Thu 22-12-01	Thu 22-12-01		Project Manager[13%],Program Manager
7.3.171	Schedule Management 171	2 hrs	1 day	Thu 22-12-08	Thu 22-12-08		Project Manager[13%],Program Manager
7.3.172	Schedule Management 172	2 hrs	1 day	Thu 22-12-15	Thu 22-12-15		Project Manager[13%],Program Manager
7.3.173	Schedule Management 173	2 hrs	1 day	Thu 22-12-22	Thu 22-12-22		Project Manager[13%],Program Manager
7.3.174	Schedule Management 174	2 hrs	1 day	Thu 22-12-29	Thu 22-12-29		Project Manager[13%],Program Manager
7.3.175	Schedule Management 175	2 hrs	1 day	Thu 23-01-05	Thu 23-01-05		Project Manager[13%],Program Manager
7.3.176	Schedule Management 176	2 hrs	1 day	Thu 23-01-12	Thu 23-01-12		Project Manager[13%],Program Manager
7.3.177	Schedule Management 177	2 hrs	1 day	Thu 23-01-19	Thu 23-01-19		Project Manager[13%],Program Manager
7.3.178	Schedule Management 178	2 hrs	1 day	Thu 23-01-26	Thu 23-01-26		Project Manager[13%],Program Manager
7.3.179	Schedule Management 179	2 hrs	1 day	Thu 23-02-02	Thu 23-02-02		Project Manager[13%],Program Manager
7.3.180	Schedule Management 180	2 hrs	1 day	Thu 23-02-09	Thu 23-02-09		Project Manager[13%],Program Manager
7.3.181	Schedule Management 181	2 hrs	1 day	Thu 23-02-16	Thu 23-02-16		Project Manager[13%],Program Manager
7.3.182	Schedule Management 182	2 hrs	1 day	Thu 23-02-23	Thu 23-02-23		Project Manager[13%],Program Manager
7.3.183	Schedule Management 183	2 hrs	1 day	Thu 23-03-02	Thu 23-03-02		Project Manager[13%],Program Manager
7.3.184	Schedule Management 184	2 hrs	1 day	Thu 23-03-09	Thu 23-03-09		Project Manager[13%],Program Manager
7.3.185	Schedule Management 185	2 hrs	1 day	Thu 23-03-16	Thu 23-03-16		Project Manager[13%],Program Manager
7.3.186	Schedule Management 186	2 hrs	1 day	Thu 23-03-23	Thu 23-03-23		Project Manager[13%],Program Manager
7.3.187	Schedule Management 187	2 hrs	1 day	Thu 23-03-30	Thu 23-03-30		Project Manager[13%],Program Manager
7.3.188	Schedule Management 188	2 hrs	1 day	Thu 23-04-06	Thu 23-04-06		Project Manager[13%],Program Manager
7.3.189	Schedule Management 189	2 hrs	1 day	Thu 23-04-13	Thu 23-04-13		Project Manager[13%],Program Manager
7.3.190	Schedule Management 190	2 hrs	1 day	Thu 23-04-20	Thu 23-04-20		Project Manager[13%],Program Manager
7.3.191	Schedule Management 191	2 hrs	1 day	Thu 23-04-27	Thu 23-04-27		Project Manager[13%],Program Manager
7.3.192	Schedule Management 192	2 hrs	1 day	Thu 23-05-04	Thu 23-05-04		Project Manager[13%],Program Manager
7.3.193	Schedule Management 193	2 hrs	1 day	Thu 23-05-11	Thu 23-05-11		Project Manager[13%],Program Manager
7.3.194	Schedule Management 194	2 hrs	1 day	Thu 23-05-18	Thu 23-05-18		Project Manager[13%],Program Manager
7.3.195	Schedule Management 195	2 hrs	1 day	Thu 23-05-25	Thu 23-05-25		Project Manager[13%],Program Manager
7.3.196	Schedule Management 196	2 hrs	1 day	Thu 23-06-01	Thu 23-06-01		Project Manager[13%],Program Manager
7.3.197	Schedule Management 197	2 hrs	1 day	Thu 23-06-08	Thu 23-06-08		Project Manager[13%],Program Manager
7.3.198	Schedule Management 198	2 hrs	1 day	Thu 23-06-15	Thu 23-06-15		Project Manager[13%],Program Manager
7.3.199	Schedule Management 199	2 hrs	1 day	Thu 23-06-22	Thu 23-06-22		Project Manager[13%],Program Manager
7.3.200	Schedule Management 200	2 hrs	1 day	Thu 23-06-29	Thu 23-06-29		Project Manager[13%],Program Manager
7.3.201	Schedule Management 201	2 hrs	1 day	Thu 23-07-06	Thu 23-07-06		Project Manager[13%],Program Manager
7.3.202	Schedule Management 202	2 hrs	1 day	Thu 23-07-13	Thu 23-07-13		Project Manager[13%],Program Manager
7.3.203	Schedule Management 203	2 hrs	1 day	Thu 23-07-20	Thu 23-07-20		Project Manager[13%],Program Manager
7.3.204	Schedule Management 204	2 hrs	1 day	Thu 23-07-27	Thu 23-07-27		Project Manager[13%],Program Manager
7.3.205	Schedule Management 205	2 hrs	1 day	Thu 23-08-03	Thu 23-08-03		Project Manager[13%],Program Manager
7.3.206	Schedule Management 206	2 hrs	1 day	Thu 23-08-10	Thu 23-08-10		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.3.207	Schedule Management 207	2 hrs	1 day	Thu 23-08-17	Thu 23-08-17		Project Manager[13%],Program Manager
7.3.208	Schedule Management 208	2 hrs	1 day	Thu 23-08-24	Thu 23-08-24		Project Manager[13%],Program Manager
7.3.209	Schedule Management 209	2 hrs	1 day	Thu 23-08-31	Thu 23-08-31		Project Manager[13%],Program Manager
7.3.210	Schedule Management 210	2 hrs	1 day	Thu 23-09-07	Thu 23-09-07		Project Manager[13%],Program Manager
7.3.211	Schedule Management 211	2 hrs	1 day	Thu 23-09-14	Thu 23-09-14		Project Manager[13%],Program Manager
7.3.212	Schedule Management 212	2 hrs	1 day	Thu 23-09-21	Thu 23-09-21		Project Manager[13%],Program Manager
7.3.213	Schedule Management 213	2 hrs	1 day	Thu 23-09-28	Thu 23-09-28		Project Manager[13%],Program Manager
7.3.214	Schedule Management 214	2 hrs	1 day	Thu 23-10-05	Thu 23-10-05		Project Manager[13%],Program Manager
7.3.215	Schedule Management 215	2 hrs	1 day	Thu 23-10-12	Thu 23-10-12		Project Manager[13%],Program Manager
7.3.216	Schedule Management 216	2 hrs	1 day	Thu 23-10-19	Thu 23-10-19		Project Manager[13%],Program Manager
7.3.217	Schedule Management 217	2 hrs	1 day	Thu 23-10-26	Thu 23-10-26		Project Manager[13%],Program Manager
7.3.218	Schedule Management 218	2 hrs	1 day	Thu 23-11-02	Thu 23-11-02		Project Manager[13%],Program Manager
7.3.219	Schedule Management 219	2 hrs	1 day	Thu 23-11-09	Thu 23-11-09		Project Manager[13%],Program Manager
7.3.220	Schedule Management 220	2 hrs	1 day	Thu 23-11-16	Thu 23-11-16		Project Manager[13%],Program Manager
7.3.221	Schedule Management 221	2 hrs	1 day	Thu 23-11-23	Thu 23-11-23		Project Manager[13%],Program Manager
7.3.222	Schedule Management 222	2 hrs	1 day	Thu 23-11-30	Thu 23-11-30		Project Manager[13%],Program Manager
7.3.223	Schedule Management 223	2 hrs	1 day	Thu 23-12-07	Thu 23-12-07		Project Manager[13%],Program Manager
7.3.224	Schedule Management 224	2 hrs	1 day	Thu 23-12-14	Thu 23-12-14		Project Manager[13%],Program Manager
7.3.225	Schedule Management 225	2 hrs	1 day	Thu 23-12-21	Thu 23-12-21		Project Manager[13%],Program Manager
7.3.226	Schedule Management 226	2 hrs	1 day	Thu 23-12-28	Thu 23-12-28		Project Manager[13%],Program Manager
7.3.227	Schedule Management 227	2 hrs	1 day	Thu 24-01-04	Thu 24-01-04		Project Manager[13%],Program Manager
7.3.228	Schedule Management 228	2 hrs	1 day	Thu 24-01-11	Thu 24-01-11		Project Manager[13%],Program Manager
7.3.229	Schedule Management 229	2 hrs	1 day	Thu 24-01-18	Thu 24-01-18		Project Manager[13%],Program Manager
7.3.230	Schedule Management 230	2 hrs	1 day	Thu 24-01-25	Thu 24-01-25		Project Manager[13%],Program Manager
7.3.231	Schedule Management 231	2 hrs	1 day	Thu 24-02-01	Thu 24-02-01		Project Manager[13%],Program Manager
7.3.232	Schedule Management 232	2 hrs	1 day	Thu 24-02-08	Thu 24-02-08		Project Manager[13%],Program Manager
7.3.233	Schedule Management 233	2 hrs	1 day	Thu 24-02-15	Thu 24-02-15		Project Manager[13%],Program Manager
7.3.234	Schedule Management 234	2 hrs	1 day	Thu 24-02-22	Thu 24-02-22		Project Manager[13%],Program Manager
7.3.235	Schedule Management 235	2 hrs	1 day	Thu 24-02-29	Thu 24-02-29		Project Manager[13%],Program Manager
7.3.236	Schedule Management 236	2 hrs	1 day	Thu 24-03-07	Thu 24-03-07		Project Manager[13%],Program Manager
7.3.237	Schedule Management 237	2 hrs	1 day	Thu 24-03-14	Thu 24-03-14		Project Manager[13%],Program Manager
7.3.238	Schedule Management 238	2 hrs	1 day	Thu 24-03-21	Thu 24-03-21		Project Manager[13%],Program Manager
7.3.239	Schedule Management 239	2 hrs	1 day	Thu 24-03-28	Thu 24-03-28		Project Manager[13%],Program Manager
7.3.240	Schedule Management 240	2 hrs	1 day	Thu 24-04-04	Thu 24-04-04		Project Manager[13%],Program Manager
7.3.241	Schedule Management 241	2 hrs	1 day	Thu 24-04-11	Thu 24-04-11		Project Manager[13%],Program Manager
7.3.242	Schedule Management 242	2 hrs	1 day	Thu 24-04-18	Thu 24-04-18		Project Manager[13%],Program Manager
7.3.243	Schedule Management 243	2 hrs	1 day	Thu 24-04-25	Thu 24-04-25		Project Manager[13%],Program Manager
7.3.244	Schedule Management 244	2 hrs	1 day	Thu 24-05-02	Thu 24-05-02		Project Manager[13%],Program Manager
7.3.245	Schedule Management 245	2 hrs	1 day	Thu 24-05-09	Thu 24-05-09		Project Manager[13%],Program Manager
7.3.246	Schedule Management 246	2 hrs	1 day	Thu 24-05-16	Thu 24-05-16		Project Manager[13%],Program Manager
7.3.247	Schedule Management 247	2 hrs	1 day	Thu 24-05-23	Thu 24-05-23		Project Manager[13%],Program Manager
7.3.248	Schedule Management 248	2 hrs	1 day	Thu 24-05-30	Thu 24-05-30		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.3.249	Schedule Management 249	2 hrs	1 day	Thu 24-06-06	Thu 24-06-06		Project Manager[13%],Program Manager
7.3.250	Schedule Management 250	2 hrs	1 day	Thu 24-06-13	Thu 24-06-13		Project Manager[13%],Program Manager
7.3.251	Schedule Management 251	2 hrs	1 day	Thu 24-06-20	Thu 24-06-20		Project Manager[13%],Program Manager
7.3.252	Schedule Management 252	2 hrs	1 day	Thu 24-06-27	Thu 24-06-27		Project Manager[13%],Program Manager
7.3.253	Schedule Management 253	2 hrs	1 day	Thu 24-07-04	Thu 24-07-04		Project Manager[13%],Program Manager
7.3.254	Schedule Management 254	2 hrs	1 day	Thu 24-07-11	Thu 24-07-11		Project Manager[13%],Program Manager
7.3.255	Schedule Management 255	2 hrs	1 day	Thu 24-07-18	Thu 24-07-18		Project Manager[13%],Program Manager
7.3.256	Schedule Management 256	2 hrs	1 day	Thu 24-07-25	Thu 24-07-25		Project Manager[13%],Program Manager
7.3.257	Schedule Management 257	2 hrs	1 day	Thu 24-08-01	Thu 24-08-01		Project Manager[13%],Program Manager
7.3.258	Schedule Management 258	2 hrs	1 day	Thu 24-08-08	Thu 24-08-08		Project Manager[13%],Program Manager
7.3.259	Schedule Management 259	2 hrs	1 day	Thu 24-08-15	Thu 24-08-15		Project Manager[13%],Program Manager
7.3.260	Schedule Management 260	2 hrs	1 day	Thu 24-08-22	Thu 24-08-22		Project Manager[13%],Program Manager
7.3.261	Schedule Management 261	2 hrs	1 day	Thu 24-08-29	Thu 24-08-29		Project Manager[13%],Program Manager
7.3.262	Schedule Management 262	2 hrs	1 day	Thu 24-09-05	Thu 24-09-05		Project Manager[13%],Program Manager
7.3.263	Schedule Management 263	2 hrs	1 day	Thu 24-09-12	Thu 24-09-12		Project Manager[13%],Program Manager
7.3.264	Schedule Management 264	2 hrs	1 day	Thu 24-09-19	Thu 24-09-19		Project Manager[13%],Program Manager
7.3.265	Schedule Management 265	2 hrs	1 day	Thu 24-09-26	Thu 24-09-26		Project Manager[13%],Program Manager
7.3.266	Schedule Management 266	2 hrs	1 day	Thu 24-10-03	Thu 24-10-03		Project Manager[13%],Program Manager
7.3.267	Schedule Management 267	2 hrs	1 day	Thu 24-10-10	Thu 24-10-10		Project Manager[13%],Program Manager
7.3.268	Schedule Management 268	2 hrs	1 day	Thu 24-10-17	Thu 24-10-17		Project Manager[13%],Program Manager
7.3.269	Schedule Management 269	2 hrs	1 day	Thu 24-10-24	Thu 24-10-24		Project Manager[13%],Program Manager
7.4	Budget management	126 hrs	1394.07 days	Fri 19-09-06	Fri 24-11-01		
7.4.1	Budget management 1	2 hrs	1 day	Fri 19-09-06	Fri 19-09-06		Project Manager[13%],Program Manager
7.4.2	Budget management 2	2 hrs	1 day	Fri 19-10-04	Fri 19-10-04		Project Manager[13%],Program Manager
7.4.3	Budget management 3	2 hrs	1 day	Fri 19-11-01	Fri 19-11-01		Project Manager[13%],Program Manager
7.4.4	Budget management 4	2 hrs	1 day	Fri 19-12-06	Fri 19-12-06		Project Manager[13%],Program Manager
7.4.5	Budget management 5	2 hrs	1 day	Fri 20-01-03	Fri 20-01-03		Project Manager[13%],Program Manager
7.4.6	Budget management 6	2 hrs	1 day	Fri 20-02-07	Fri 20-02-07		Project Manager[13%],Program Manager
7.4.7	Budget management 7	2 hrs	1 day	Fri 20-03-06	Fri 20-03-06		Project Manager[13%],Program Manager
7.4.8	Budget management 8	2 hrs	1 day	Fri 20-04-03	Fri 20-04-03		Project Manager[13%],Program Manager
7.4.9	Budget management 9	2 hrs	1 day	Fri 20-05-01	Fri 20-05-01		Project Manager[13%],Program Manager
7.4.10	Budget management 10	2 hrs	1 day	Fri 20-06-05	Fri 20-06-05		Project Manager[13%],Program Manager
7.4.11	Budget management 11	2 hrs	1 day	Fri 20-07-03	Fri 20-07-03		Project Manager[13%],Program Manager
7.4.12	Budget management 12	2 hrs	1 day	Fri 20-08-07	Fri 20-08-07		Project Manager[13%],Program Manager
7.4.13	Budget management 13	2 hrs	1 day	Fri 20-09-04	Fri 20-09-04		Project Manager[13%],Program Manager
7.4.14	Budget management 14	2 hrs	1 day	Fri 20-10-02	Fri 20-10-02		Project Manager[13%],Program Manager
7.4.15	Budget management 15	2 hrs	1 day	Fri 20-11-06	Fri 20-11-06		Project Manager[13%],Program Manager
7.4.16	Budget management 16	2 hrs	1 day	Fri 20-12-04	Fri 20-12-04		Project Manager[13%],Program Manager
7.4.17	Budget management 17	2 hrs	1 day	Mon 21-01-04	Mon 21-01-04		Project Manager[13%],Program Manager
7.4.18	Budget management 18	2 hrs	1 day	Fri 21-02-05	Fri 21-02-05		Project Manager[13%],Program Manager
7.4.19	Budget management 19	2 hrs	1 day	Fri 21-03-05	Fri 21-03-05		Project Manager[13%],Program Manager
7.4.20	Budget management 20	2 hrs	1 day	Tue 21-04-06	Tue 21-04-06		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.4.21	Budget management 21	2 hrs	1 day	Fri 21-05-07	Fri 21-05-07		Project Manager[13%],Program Manager
7.4.22	Budget management 22	2 hrs	1 day	Fri 21-06-04	Fri 21-06-04		Project Manager[13%],Program Manager
7.4.23	Budget management 23	2 hrs	1 day	Fri 21-07-02	Fri 21-07-02		Project Manager[13%],Program Manager
7.4.24	Budget management 24	2 hrs	1 day	Fri 21-08-06	Fri 21-08-06		Project Manager[13%],Program Manager
7.4.25	Budget management 25	2 hrs	1 day	Fri 21-09-03	Fri 21-09-03		Project Manager[13%],Program Manager
7.4.26	Budget management 26	2 hrs	1 day	Fri 21-10-01	Fri 21-10-01		Project Manager[13%],Program Manager
7.4.27	Budget management 27	2 hrs	1 day	Fri 21-11-05	Fri 21-11-05		Project Manager[13%],Program Manager
7.4.28	Budget management 28	2 hrs	1 day	Fri 21-12-03	Fri 21-12-03		Project Manager[13%],Program Manager
7.4.29	Budget management 29	2 hrs	1 day	Fri 22-01-07	Fri 22-01-07		Project Manager[13%],Program Manager
7.4.30	Budget management 30	2 hrs	1 day	Fri 22-02-04	Fri 22-02-04		Project Manager[13%],Program Manager
7.4.31	Budget management 31	2 hrs	1 day	Fri 22-03-04	Fri 22-03-04		Project Manager[13%],Program Manager
7.4.32	Budget management 32	2 hrs	1 day	Fri 22-04-01	Fri 22-04-01		Project Manager[13%],Program Manager
7.4.33	Budget management 33	2 hrs	1 day	Fri 22-05-06	Fri 22-05-06		Project Manager[13%],Program Manager
7.4.34	Budget management 34	2 hrs	1 day	Fri 22-06-03	Fri 22-06-03		Project Manager[13%],Program Manager
7.4.35	Budget management 35	2 hrs	1 day	Mon 22-07-04	Mon 22-07-04		Project Manager[13%],Program Manager
7.4.36	Budget management 36	2 hrs	1 day	Fri 22-08-05	Fri 22-08-05		Project Manager[13%],Program Manager
7.4.37	Budget management 37	2 hrs	1 day	Fri 22-09-02	Fri 22-09-02		Project Manager[13%],Program Manager
7.4.38	Budget management 38	2 hrs	1 day	Fri 22-10-07	Fri 22-10-07		Project Manager[13%],Program Manager
7.4.39	Budget management 39	2 hrs	1 day	Fri 22-11-04	Fri 22-11-04		Project Manager[13%],Program Manager
7.4.40	Budget management 40	2 hrs	1 day	Fri 22-12-02	Fri 22-12-02		Project Manager[13%],Program Manager
7.4.41	Budget management 41	2 hrs	1 day	Fri 23-01-06	Fri 23-01-06		Project Manager[13%],Program Manager
7.4.42	Budget management 42	2 hrs	1 day	Fri 23-02-03	Fri 23-02-03		Project Manager[13%],Program Manager
7.4.43	Budget management 43	2 hrs	1 day	Fri 23-03-03	Fri 23-03-03		Project Manager[13%],Program Manager
7.4.44	Budget management 44	2 hrs	1 day	Fri 23-04-07	Fri 23-04-07		Project Manager[13%],Program Manager
7.4.45	Budget management 45	2 hrs	1 day	Fri 23-05-05	Fri 23-05-05		Project Manager[13%],Program Manager
7.4.46	Budget management 46	2 hrs	1 day	Fri 23-06-02	Fri 23-06-02		Project Manager[13%],Program Manager
7.4.47	Budget management 47	2 hrs	1 day	Fri 23-07-07	Fri 23-07-07		Project Manager[13%],Program Manager
7.4.48	Budget management 48	2 hrs	1 day	Fri 23-08-04	Fri 23-08-04		Project Manager[13%],Program Manager
7.4.49	Budget management 49	2 hrs	1 day	Fri 23-09-01	Fri 23-09-01		Project Manager[13%],Program Manager
7.4.50	Budget management 50	2 hrs	1 day	Fri 23-10-06	Fri 23-10-06		Project Manager[13%],Program Manager
7.4.51	Budget management 51	2 hrs	1 day	Fri 23-11-03	Fri 23-11-03		Project Manager[13%],Program Manager
7.4.52	Budget management 52	2 hrs	1 day	Fri 23-12-01	Fri 23-12-01		Project Manager[13%],Program Manager
7.4.53	Budget management 53	2 hrs	1 day	Fri 24-01-05	Fri 24-01-05		Project Manager[13%],Program Manager
7.4.54	Budget management 54	2 hrs	1 day	Fri 24-02-02	Fri 24-02-02		Project Manager[13%],Program Manager
7.4.55	Budget management 55	2 hrs	1 day	Fri 24-03-01	Fri 24-03-01		Project Manager[13%],Program Manager
7.4.56	Budget management 56	2 hrs	1 day	Fri 24-04-05	Fri 24-04-05		Project Manager[13%],Program Manager
7.4.57	Budget management 57	2 hrs	1 day	Fri 24-05-03	Fri 24-05-03		Project Manager[13%],Program Manager
7.4.58	Budget management 58	2 hrs	1 day	Fri 24-06-07	Fri 24-06-07		Project Manager[13%],Program Manager
7.4.59	Budget management 59	2 hrs	1 day	Fri 24-07-05	Fri 24-07-05		Project Manager[13%],Program Manager
7.4.60	Budget management 60	2 hrs	1 day	Fri 24-08-02	Fri 24-08-02		Project Manager[13%],Program Manager
7.4.61	Budget management 61	2 hrs	1 day	Fri 24-09-06	Fri 24-09-06		Project Manager[13%],Program Manager
7.4.62	Budget management 62	2 hrs	1 day	Fri 24-10-04	Fri 24-10-04		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.4.63	Budget management 63	2 hrs	1 day	Fri 24-11-01	Fri 24-11-01		Project Manager[13%],Program Manager
7.5	Risk management review and analysis	126 hrs	1394.07 days	Fri 19-09-06	Fri 24-11-01		
7.5.1	Risk management review and analysis 1	2 hrs	1 day	Fri 19-09-06	Fri 19-09-06		Project Manager[13%],Program Manager
7.5.2	Risk management review and analysis 2	2 hrs	1 day	Fri 19-10-04	Fri 19-10-04		Project Manager[13%],Program Manager
7.5.3	Risk management review and analysis 3	2 hrs	1 day	Fri 19-11-01	Fri 19-11-01		Project Manager[13%],Program Manager
7.5.4	Risk management review and analysis 4	2 hrs	1 day	Fri 19-12-06	Fri 19-12-06		Project Manager[13%],Program Manager
7.5.5	Risk management review and analysis 5	2 hrs	1 day	Fri 20-01-03	Fri 20-01-03		Project Manager[13%],Program Manager
7.5.6	Risk management review and analysis 6	2 hrs	1 day	Fri 20-02-07	Fri 20-02-07		Project Manager[13%],Program Manager
7.5.7	Risk management review and analysis 7	2 hrs	1 day	Fri 20-03-06	Fri 20-03-06		Project Manager[13%],Program Manager
7.5.8	Risk management review and analysis 8	2 hrs	1 day	Fri 20-04-03	Fri 20-04-03		Project Manager[13%],Program Manager
7.5.9	Risk management review and analysis 9	2 hrs	1 day	Fri 20-05-01	Fri 20-05-01		Project Manager[13%],Program Manager
7.5.10	Risk management review and analysis 10	2 hrs	1 day	Fri 20-06-05	Fri 20-06-05		Project Manager[13%],Program Manager
7.5.11	Risk management review and analysis 11	2 hrs	1 day	Fri 20-07-03	Fri 20-07-03		Project Manager[13%],Program Manager
7.5.12	Risk management review and analysis 12	2 hrs	1 day	Fri 20-08-07	Fri 20-08-07		Project Manager[13%],Program Manager
7.5.13	Risk management review and analysis 13	2 hrs	1 day	Fri 20-09-04	Fri 20-09-04		Project Manager[13%],Program Manager
7.5.14	Risk management review and analysis 14	2 hrs	1 day	Fri 20-10-02	Fri 20-10-02		Project Manager[13%],Program Manager
7.5.15	Risk management review and analysis 15	2 hrs	1 day	Fri 20-11-06	Fri 20-11-06		Project Manager[13%],Program Manager
7.5.16	Risk management review and analysis 16	2 hrs	1 day	Fri 20-12-04	Fri 20-12-04		Project Manager[13%],Program Manager
7.5.17	Risk management review and analysis 17	2 hrs	1 day	Mon 21-01-04	Mon 21-01-04		Project Manager[13%],Program Manager
7.5.18	Risk management review and analysis 18	2 hrs	1 day	Fri 21-02-05	Fri 21-02-05		Project Manager[13%],Program Manager
7.5.19	Risk management review and analysis 19	2 hrs	1 day	Fri 21-03-05	Fri 21-03-05		Project Manager[13%],Program Manager
7.5.20	Risk management review and analysis 20	2 hrs	1 day	Tue 21-04-06	Tue 21-04-06		Project Manager[13%],Program Manager
7.5.21	Risk management review and analysis 21	2 hrs	1 day	Fri 21-05-07	Fri 21-05-07		Project Manager[13%],Program Manager
7.5.22	Risk management review and analysis 22	2 hrs	1 day	Fri 21-06-04	Fri 21-06-04		Project Manager[13%],Program Manager
7.5.23	Risk management review and analysis 23	2 hrs	1 day	Fri 21-07-02	Fri 21-07-02		Project Manager[13%],Program Manager
7.5.24	Risk management review and analysis 24	2 hrs	1 day	Fri 21-08-06	Fri 21-08-06		Project Manager[13%],Program Manager
7.5.25	Risk management review and analysis 25	2 hrs	1 day	Fri 21-09-03	Fri 21-09-03		Project Manager[13%],Program Manager
7.5.26	Risk management review and analysis 26	2 hrs	1 day	Fri 21-10-01	Fri 21-10-01		Project Manager[13%],Program Manager
7.5.27	Risk management review and analysis 27	2 hrs	1 day	Fri 21-11-05	Fri 21-11-05		Project Manager[13%],Program Manager
7.5.28	Risk management review and analysis 28	2 hrs	1 day	Fri 21-12-03	Fri 21-12-03		Project Manager[13%],Program Manager
7.5.29	Risk management review and analysis 29	2 hrs	1 day	Fri 22-01-07	Fri 22-01-07		Project Manager[13%],Program Manager
7.5.30	Risk management review and analysis 30	2 hrs	1 day	Fri 22-02-04	Fri 22-02-04		Project Manager[13%],Program Manager
7.5.31	Risk management review and analysis 31	2 hrs	1 day	Fri 22-03-04	Fri 22-03-04		Project Manager[13%],Program Manager
7.5.32	Risk management review and analysis 32	2 hrs	1 day	Fri 22-04-01	Fri 22-04-01		Project Manager[13%],Program Manager
7.5.33	Risk management review and analysis 33	2 hrs	1 day	Fri 22-05-06	Fri 22-05-06		Project Manager[13%],Program Manager
7.5.34	Risk management review and analysis 34	2 hrs	1 day	Fri 22-06-03	Fri 22-06-03		Project Manager[13%],Program Manager
7.5.35	Risk management review and analysis 35	2 hrs	1 day	Mon 22-07-04	Mon 22-07-04		Project Manager[13%],Program Manager
7.5.36	Risk management review and analysis 36	2 hrs	1 day	Fri 22-08-05	Fri 22-08-05		Project Manager[13%],Program Manager
7.5.37	Risk management review and analysis 37	2 hrs	1 day	Fri 22-09-02	Fri 22-09-02		Project Manager[13%],Program Manager
7.5.38	Risk management review and analysis 38	2 hrs	1 day	Fri 22-10-07	Fri 22-10-07		Project Manager[13%],Program Manager
7.5.39	Risk management review and analysis 39	2 hrs	1 day	Fri 22-11-04	Fri 22-11-04		Project Manager[13%],Program Manager
7.5.40	Risk management review and analysis 40	2 hrs	1 day	Fri 22-12-02	Fri 22-12-02		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.5.41	Risk management review and analysis 41	2 hrs	1 day	Fri 23-01-06	Fri 23-01-06		Project Manager[13%],Program Manager
7.5.42	Risk management review and analysis 42	2 hrs	1 day	Fri 23-02-03	Fri 23-02-03		Project Manager[13%],Program Manager
7.5.43	Risk management review and analysis 43	2 hrs	1 day	Fri 23-03-03	Fri 23-03-03		Project Manager[13%],Program Manager
7.5.44	Risk management review and analysis 44	2 hrs	1 day	Fri 23-04-07	Fri 23-04-07		Project Manager[13%],Program Manager
7.5.45	Risk management review and analysis 45	2 hrs	1 day	Fri 23-05-05	Fri 23-05-05		Project Manager[13%],Program Manager
7.5.46	Risk management review and analysis 46	2 hrs	1 day	Fri 23-06-02	Fri 23-06-02		Project Manager[13%],Program Manager
7.5.47	Risk management review and analysis 47	2 hrs	1 day	Fri 23-07-07	Fri 23-07-07		Project Manager[13%],Program Manager
7.5.48	Risk management review and analysis 48	2 hrs	1 day	Fri 23-08-04	Fri 23-08-04		Project Manager[13%],Program Manager
7.5.49	Risk management review and analysis 49	2 hrs	1 day	Fri 23-09-01	Fri 23-09-01		Project Manager[13%],Program Manager
7.5.50	Risk management review and analysis 50	2 hrs	1 day	Fri 23-10-06	Fri 23-10-06		Project Manager[13%],Program Manager
7.5.51	Risk management review and analysis 51	2 hrs	1 day	Fri 23-11-03	Fri 23-11-03		Project Manager[13%],Program Manager
7.5.52	Risk management review and analysis 52	2 hrs	1 day	Fri 23-12-01	Fri 23-12-01		Project Manager[13%],Program Manager
7.5.53	Risk management review and analysis 53	2 hrs	1 day	Fri 24-01-05	Fri 24-01-05		Project Manager[13%],Program Manager
7.5.54	Risk management review and analysis 54	2 hrs	1 day	Fri 24-02-02	Fri 24-02-02		Project Manager[13%],Program Manager
7.5.55	Risk management review and analysis 55	2 hrs	1 day	Fri 24-03-01	Fri 24-03-01		Project Manager[13%],Program Manager
7.5.56	Risk management review and analysis 56	2 hrs	1 day	Fri 24-04-05	Fri 24-04-05		Project Manager[13%],Program Manager
7.5.57	Risk management review and analysis 57	2 hrs	1 day	Fri 24-05-03	Fri 24-05-03		Project Manager[13%],Program Manager
7.5.58	Risk management review and analysis 58	2 hrs	1 day	Fri 24-06-07	Fri 24-06-07		Project Manager[13%],Program Manager
7.5.59	Risk management review and analysis 59	2 hrs	1 day	Fri 24-07-05	Fri 24-07-05		Project Manager[13%],Program Manager
7.5.60	Risk management review and analysis 60	2 hrs	1 day	Fri 24-08-02	Fri 24-08-02		Project Manager[13%],Program Manager
7.5.61	Risk management review and analysis 61	2 hrs	1 day	Fri 24-09-06	Fri 24-09-06		Project Manager[13%],Program Manager
7.5.62	Risk management review and analysis 62	2 hrs	1 day	Fri 24-10-04	Fri 24-10-04		Project Manager[13%],Program Manager
7.5.63	Risk management review and analysis 63	2 hrs	1 day	Fri 24-11-01	Fri 24-11-01		Project Manager[13%],Program Manager
7.6	Create project status report	126 hrs	1394.07 days	Fri 19-09-06	Fri 24-11-01		
7.6.1	Create project status report 1	2 hrs	1 day	Fri 19-09-06	Fri 19-09-06		Project Manager[13%],Program Manager
7.6.2	Create project status report 2	2 hrs	1 day	Fri 19-10-04	Fri 19-10-04		Project Manager[13%],Program Manager
7.6.3	Create project status report 3	2 hrs	1 day	Fri 19-11-01	Fri 19-11-01		Project Manager[13%],Program Manager
7.6.4	Create project status report 4	2 hrs	1 day	Fri 19-12-06	Fri 19-12-06		Project Manager[13%],Program Manager
7.6.5	Create project status report 5	2 hrs	1 day	Fri 20-01-03	Fri 20-01-03		Project Manager[13%],Program Manager
7.6.6	Create project status report 6	2 hrs	1 day	Fri 20-02-07	Fri 20-02-07		Project Manager[13%],Program Manager
7.6.7	Create project status report 7	2 hrs	1 day	Fri 20-03-06	Fri 20-03-06		Project Manager[13%],Program Manager
7.6.8	Create project status report 8	2 hrs	1 day	Fri 20-04-03	Fri 20-04-03		Project Manager[13%],Program Manager
7.6.9	Create project status report 9	2 hrs	1 day	Fri 20-05-01	Fri 20-05-01		Project Manager[13%],Program Manager
7.6.10	Create project status report 10	2 hrs	1 day	Fri 20-06-05	Fri 20-06-05		Project Manager[13%],Program Manager
7.6.11	Create project status report 11	2 hrs	1 day	Fri 20-07-03	Fri 20-07-03		Project Manager[13%],Program Manager
7.6.12	Create project status report 12	2 hrs	1 day	Fri 20-08-07	Fri 20-08-07		Project Manager[13%],Program Manager
7.6.13	Create project status report 13	2 hrs	1 day	Fri 20-09-04	Fri 20-09-04		Project Manager[13%],Program Manager
7.6.14	Create project status report 14	2 hrs	1 day	Fri 20-10-02	Fri 20-10-02		Project Manager[13%],Program Manager
7.6.15	Create project status report 15	2 hrs	1 day	Fri 20-11-06	Fri 20-11-06		Project Manager[13%],Program Manager
7.6.16	Create project status report 16	2 hrs	1 day	Fri 20-12-04	Fri 20-12-04		Project Manager[13%],Program Manager
7.6.17	Create project status report 17	2 hrs	1 day	Mon 21-01-04	Mon 21-01-04		Project Manager[13%],Program Manager
7.6.18	Create project status report 18	2 hrs	1 day	Fri 21-02-05	Fri 21-02-05		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.6.19	Create project status report 19	2 hrs	1 day	Fri 21-03-05	Fri 21-03-05		Project Manager[13%],Program Manager
7.6.20	Create project status report 20	2 hrs	1 day	Tue 21-04-06	Tue 21-04-06		Project Manager[13%],Program Manager
7.6.21	Create project status report 21	2 hrs	1 day	Fri 21-05-07	Fri 21-05-07		Project Manager[13%],Program Manager
7.6.22	Create project status report 22	2 hrs	1 day	Fri 21-06-04	Fri 21-06-04		Project Manager[13%],Program Manager
7.6.23	Create project status report 23	2 hrs	1 day	Fri 21-07-02	Fri 21-07-02		Project Manager[13%],Program Manager
7.6.24	Create project status report 24	2 hrs	1 day	Fri 21-08-06	Fri 21-08-06		Project Manager[13%],Program Manager
7.6.25	Create project status report 25	2 hrs	1 day	Fri 21-09-03	Fri 21-09-03		Project Manager[13%],Program Manager
7.6.26	Create project status report 26	2 hrs	1 day	Fri 21-10-01	Fri 21-10-01		Project Manager[13%],Program Manager
7.6.27	Create project status report 27	2 hrs	1 day	Fri 21-11-05	Fri 21-11-05		Project Manager[13%],Program Manager
7.6.28	Create project status report 28	2 hrs	1 day	Fri 21-12-03	Fri 21-12-03		Project Manager[13%],Program Manager
7.6.29	Create project status report 29	2 hrs	1 day	Fri 22-01-07	Fri 22-01-07		Project Manager[13%],Program Manager
7.6.30	Create project status report 30	2 hrs	1 day	Fri 22-02-04	Fri 22-02-04		Project Manager[13%],Program Manager
7.6.31	Create project status report 31	2 hrs	1 day	Fri 22-03-04	Fri 22-03-04		Project Manager[13%],Program Manager
7.6.32	Create project status report 32	2 hrs	1 day	Fri 22-04-01	Fri 22-04-01		Project Manager[13%],Program Manager
7.6.33	Create project status report 33	2 hrs	1 day	Fri 22-05-06	Fri 22-05-06		Project Manager[13%],Program Manager
7.6.34	Create project status report 34	2 hrs	1 day	Fri 22-06-03	Fri 22-06-03		Project Manager[13%],Program Manager
7.6.35	Create project status report 35	2 hrs	1 day	Mon 22-07-04	Mon 22-07-04		Project Manager[13%],Program Manager
7.6.36	Create project status report 36	2 hrs	1 day	Fri 22-08-05	Fri 22-08-05		Project Manager[13%],Program Manager
7.6.37	Create project status report 37	2 hrs	1 day	Fri 22-09-02	Fri 22-09-02		Project Manager[13%],Program Manager
7.6.38	Create project status report 38	2 hrs	1 day	Fri 22-10-07	Fri 22-10-07		Project Manager[13%],Program Manager
7.6.39	Create project status report 39	2 hrs	1 day	Fri 22-11-04	Fri 22-11-04		Project Manager[13%],Program Manager
7.6.40	Create project status report 40	2 hrs	1 day	Fri 22-12-02	Fri 22-12-02		Project Manager[13%],Program Manager
7.6.41	Create project status report 41	2 hrs	1 day	Fri 23-01-06	Fri 23-01-06		Project Manager[13%],Program Manager
7.6.42	Create project status report 42	2 hrs	1 day	Fri 23-02-03	Fri 23-02-03		Project Manager[13%],Program Manager
7.6.43	Create project status report 43	2 hrs	1 day	Fri 23-03-03	Fri 23-03-03		Project Manager[13%],Program Manager
7.6.44	Create project status report 44	2 hrs	1 day	Fri 23-04-07	Fri 23-04-07		Project Manager[13%],Program Manager
7.6.45	Create project status report 45	2 hrs	1 day	Fri 23-05-05	Fri 23-05-05		Project Manager[13%],Program Manager
7.6.46	Create project status report 46	2 hrs	1 day	Fri 23-06-02	Fri 23-06-02		Project Manager[13%],Program Manager
7.6.47	Create project status report 47	2 hrs	1 day	Fri 23-07-07	Fri 23-07-07		Project Manager[13%],Program Manager
7.6.48	Create project status report 48	2 hrs	1 day	Fri 23-08-04	Fri 23-08-04		Project Manager[13%],Program Manager
7.6.49	Create project status report 49	2 hrs	1 day	Fri 23-09-01	Fri 23-09-01		Project Manager[13%],Program Manager
7.6.50	Create project status report 50	2 hrs	1 day	Fri 23-10-06	Fri 23-10-06		Project Manager[13%],Program Manager
7.6.51	Create project status report 51	2 hrs	1 day	Fri 23-11-03	Fri 23-11-03		Project Manager[13%],Program Manager
7.6.52	Create project status report 52	2 hrs	1 day	Fri 23-12-01	Fri 23-12-01		Project Manager[13%],Program Manager
7.6.53	Create project status report 53	2 hrs	1 day	Fri 24-01-05	Fri 24-01-05		Project Manager[13%],Program Manager
7.6.54	Create project status report 54	2 hrs	1 day	Fri 24-02-02	Fri 24-02-02		Project Manager[13%],Program Manager
7.6.55	Create project status report 55	2 hrs	1 day	Fri 24-03-01	Fri 24-03-01		Project Manager[13%],Program Manager
7.6.56	Create project status report 56	2 hrs	1 day	Fri 24-04-05	Fri 24-04-05		Project Manager[13%],Program Manager
7.6.57	Create project status report 57	2 hrs	1 day	Fri 24-05-03	Fri 24-05-03		Project Manager[13%],Program Manager
7.6.58	Create project status report 58	2 hrs	1 day	Fri 24-06-07	Fri 24-06-07		Project Manager[13%],Program Manager
7.6.59	Create project status report 59	2 hrs	1 day	Fri 24-07-05	Fri 24-07-05		Project Manager[13%],Program Manager
7.6.60	Create project status report 60	2 hrs	1 day	Fri 24-08-02	Fri 24-08-02		Project Manager[13%],Program Manager

WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Resource Names
7.6.61	Create project status report 61	2 hrs	1 day	Fri 24-09-06	Fri 24-09-06		Project Manager[13%],Program Manager
7.6.62	Create project status report 62	2 hrs	1 day	Fri 24-10-04	Fri 24-10-04		Project Manager[13%],Program Manager
7.6.63	Create project status report 63	2 hrs	1 day	Fri 24-11-01	Fri 24-11-01		Project Manager[13%],Program Manager

APPENDIX C: YOUTUBE VIDEO TRANSCRIPTS



MuleSoft Videos, 19 Jun 2015. What is API? Retrieved from <https://www.youtube.com/watch?v=s7wmiS2mSXY>

Transcription of: What is API?

Connectivity is an amazing thing. By now we're all used to the instant connectivity that puts the world at our fingertips. From desktops or devices we can purchase post pin and pick anything anywhere – we are connected to the world and each other like never before. But how does it happen? How does data get from here to there? How do different devices and applications connect with each other to allow us to place an order, make a reservation, or book a flight with just a few types of things? The unsung hero of our connected world is it the application programming interface or API? It's the engine under the hood and is behind the scenes that we take for granted but it's what makes possible all the interactivity we've come to expect and rely upon but what exactly is an API? It's a question everyone asks. Ok? Not really, but we're glad you did. The textbook goes something like this: in computer programming: an application programming interface (API) is a set of routine protocols. To speak plainly, an API is the messenger that takes requests and tells a system what you want to do and then returns the response back to you. To give you a familiar example, think of an API as a waiter in a restaurant. Imagine you're sitting at the table with a menu of choices to order from and the kitchen is the part of the system which will prepare your order. What's missing is the critical link to communicate your order to the kitchen and deliver your food back to your table. That's where the waiter or API come in. The waiter is the messenger that takes your request or order and tells the system- in this case the kitchen - what to do and the response back to you, in this case food. Now that we've whetted your appetite, let's apply this to a real API example you are probably familiar with. The process of searching for airline online, just like at a restaurant, you have a menu of options to choose from, a drop-down menu in this case. You choose a departure city and date, a return city and date tabbing clasp and other variables in order to book your flight. You interact with the airlines website to access the airline's database to see if any seats are available on those dates and what the cost might be based on certain variables but what if you're not using the Airlines website which has direct access to the information? What if you are using an online travel service that aggregates information from many different airlines? The travel service interacts with the airlines' API. The API is the interface that, like you're helpful waiter, can be asked by that online travel service to get information from the airline system over the internet to book seats choose meal preferences or baggage options. It also then take the airline's response to your request and delivers it right back to the online travel service which then shows it to you so now you can see that it's API's that make it possible for us all to use travel sites. The same goes for all interactions between applications, data, and devices, they all have API's that allow computers to operate them and that's what ultimately creates connectivity. So, whenever you think of an API just think of it as your waiter running back and forth between applications, databases, and devices to deliver data and create the connectivity that puts the world at our fingertips and whenever you think of creating an API, think MuleSoft.

Transcription of "What is BLOCKCHAIN? The best explanation of blockchain technology"

Many people think of blockchain as the technology that powers Bitcoin. While this was its original purpose, blockchain is capable of so much more. Despite the sound of the word, there's not just one blockchain. Blockchain is shorthand for a whole suite of distributed ledger technologies that can be programmed to record and track anything of value, from financial transactions to medical records or even land titles. You might be thinking: we already have processes in place to track data. What's so special about blockchain? Let's break down the reasons why blockchain technology stands to revolutionize the way we interact with each other. Reason number one: the way it tracks and stores data. Blockchain stores information in batches called blocks that are linked together in a chronological fashion to form a continuous line: metaphorically, a chain of blocks. If you make a change to the information recorded in a particular block, you don't rewrite it. Instead the change is stored in a new block showing that x changed to y at a particular date and time. Sound familiar? That's because blockchain is based on the centuries-old method of the general financial ledger. It's a non-destructive way to track data changes over time. Here's one example. Let's say there was a dispute between Anne and her brother Steve over who owns a piece of land that's been in the family for years. Because blockchain technology uses the ledger method, there is an entry in the ledger showing that Adam first owned the property in 1900. When Adam sold the property to Dave in 1930, a new entry was made in the ledger, and so on. Every change of ownership of this property is represented by a new entry in the ledger, right up until Anne bought it from their father in 2007. Anne is the current owner and we can see that history in the ledger. Now, here's where things get really interesting. Unlike the age-old ledger method – originally a book then a database file stored on a single system – blockchain was designed to be decentralized and distributed across a large network of computers. This decentralizing of information reduces the ability for data tampering and brings us to the second factor that makes blockchain unique: it creates trust in the data. Before a block can be added to the chain, a few things have to happen. First, a cryptographic puzzle must be solved, thus creating the block. The computer that solves the puzzle shares the solution to all the other computers on the network, this is called proof-of-work. The network will then verify this proof-of-work and, if correct, the block will be added to the chain. The combination of these complex math puzzles and verification by many computers ensures that we can trust each and every block on the chain. Because the network does the trust building for us, we now have the opportunity to interact directly with our data in real-time. And this brings us to the third reason blockchain technology is such a game changer: no more intermediaries. Currently, when doing business with one another, we don't show the other person our financial or business records. Instead, we rely on trusted intermediaries, such as a bank or a lawyer to view our records, and keep that information confidential. These intermediaries build trust between the parties and are able to verify, for example, that, "Yes, Anne is the rightful owner of this land". This approach limits exposure and risk, but also adds another step to the exchange, which means more time and money spent. If Anne's land title information was stored in a blockchain, she could cut out the middleman, her lawyer, who would ordinarily confirm her information with Steve. As we now know, all blocks added to the chain have been verified to be true and can't be tampered with, so Anne can simply show Steve her land title information secured on the blockchain. Anne would save considerable time and money by cutting out the middleman. This type of trusted peer-to-peer interaction with our data can revolutionize the way we

access, verify and transact with one another. And because blockchain is a type of technology and not a single network, it can be implemented in many different ways. Some blockchains can be completely public and open to everyone to view and access. Others can be closed to a select group of authorized users (private blockchain) such as your company, a group of banks or government agencies. And then there are hybrid public-private blockchains too. In some, those with private access can see all the data, while the public can see only the selections. In others, everyone can see all the data, but only some people have access to add new data. A government, for example, could use a hybrid system to record the boundaries of Anne's property and the fact that she owns it, while keeping her personal information private. Or it could allow everyone to view property records, but reserve to itself the exclusive right to update them. It is the combination of all of these factors – de-centralizing of the data, building trust in the data, and allowing us to interact directly with one another and the data – that gives blockchain technology the potential to underpin many of the ways we interact with one another. But, much like the rise of the internet, this technology will bring with it all kinds of complex policy questions around governance, international law, security and economics. Here at the Centre for International Governance Innovation, we seek to bring trusted research that will equip policy makers with the information they need to advance blockchain innovations, enabling economies to flourish in this new digital economy.

Hyperledger, 28 Apr 2017. Hyperledger Fabric Explainer. Retrieved from <https://www.youtube.com/watch?v=js3Zjxbo8TM>

Transcription of “Hyperledger Fabric Explainer”

Permissioned blockchain users that require every peer to execute every transaction, maintain a ledger and run consensus can't scale very well and they can't support true private transactions and contracts. So the hyperledger community designed Fabric V1 to deliver a truly modular, scalable and secure foundation for industrial blockchain solutions. The most notable change is the peers are decoupled into two separate run times with three distinct roles, endorser, committer and consenter. Here is how it works: say you run an organic market in California and I grow radishes on my farm in Chile. You and I are on a blockchain network that supports transactions between various markets, growers, shippers, banks and others. Say I agree to sell you my radishes at a special low price, but I need the other markets that buy from me to continue buying at the standard price. They shouldn't be able to execute our confidential agreement and find out the details of our deal. In fact, if they aren't part of the deal the transaction shouldn't appear on the ledger. Fabric V1 handles all this. My app looks up your identity from a membership service and then sends the transaction only to our peers. Both of our peers will generate a result. In this two party agreement the transaction requires both of us to render the same result, but in transactions with more parties other rules can apply. Then the peers send the validated transaction back to the application which sends it to a consensus Cloud for ordering and then the order transactions are sent back to the peers and committed to the ledger. But to get my radishes to your market there are many other parties involved. Some need to know that my radishes have been verified and checked into a shipping container, others need to handle bills of lading, customs inspections, financing, insurance, but most of these parties don't need to know about our special price. Now think about our transaction running on a network handling all the markets, all the farmers, shippers, facilitators, the whole supply chain. This is the same pattern needed by many industries, anywhere we need to manage confidential applications to each other without passing everything through a central authority.

www.hyperledger.org